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TITLE: Continuing Support of the ASA Standards Program

PRINCIPAL INVESTIGATOR: Avril Brenig

CONTRACTING ORGANIZATION: Acoustical Society of America  
New York, NY 10017-3483

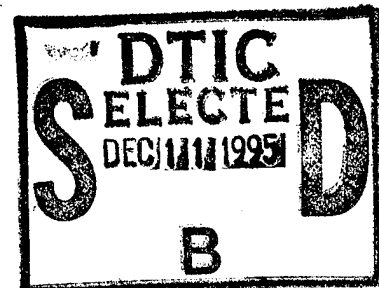
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**S3/400**

# MINUTES

ACCREDITED STANDARDS COMMITTEE  
ON BIOACOUSTICS, S3

U.S. TAG FOR ISO/TC 43, ACOUSTICS,  
IEC/TC 29 ELECTROACOUSTICS,  
AND ISO/TC 108/SC4 HUMAN EXPOSURE TO  
MECHANICAL VIBRATION AND SHOCK

Washington, D.C.

Friday, 2 June 1995

S3/400

MINUTES OF S3 MEETING HELD IN  
WASHINGTON, D.C. ON FRIDAY, 2 JUNE 1995

TABLE OF CONTENTS

	<u>Page No.</u>
1. <u>Approval of the Minutes of the Austin, Texas meeting, held on 1 December 1994 (S3/393).</u> . . . . .	2
2. <u>Organization</u> . . . . .	2
3. <u>Standards approved by ANSI in 1995 and published (or being published) by ASA</u> . . . . .	3
4. <u>Organizational matters and reports on working groups, including reports on letter ballots and international matters</u> . . . . .	3
5. <u>International Matters</u> . . . . .	9
6. <u>Review of Standards more than five years in existence</u> . . . . .	10
7. <u>Extensions of time for formal submittal of proposed standards to ANSI</u> . . . . .	12
8. <u>New International Standards from ANSI</u> . . . . .	12
9. <u>Procedural Ballots</u> . . . . .	13
10. <u>Other Business</u> . . . . .	13
11. <u>New Business</u> . . . . .	14
12. <u>Future Meetings of S3</u> . . . . .	15
13. <u>Adjournment</u> . . . . .	15

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IEC/TC 29 ELECTROACOUSTICS and  
ISO/TC 108/SC4 HUMAN EXPOSURE TO  
MECHANICAL VIBRATION AND SHOCK

Washington, D.C.

Friday, 2 June 1995

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The meeting was called to order by Mr. T. Frank, Chair S3, at 1:35 PM, in Meeting Room 17, the Washington, D.C. Renaissance Hotel.

### ORGANIZATIONAL MEMBERS PRESENT

AT&T  
NIST  
ASA Rep.  
American Otological Society  
ASHA  
AIHA

Mayer, M.S.  
Nedzelnitsky, V. (alt for E.D. Burnett)  
Frank, T., Chair S3  
Naunton, R.  
Royster, J.D., Individual Expert S3  
Royster, L.H.

**INDIVIDUAL EXPERTS PRESENT**

Brammer, A.J.	NRC, Canada
Guernsey, R.M.	R.M. Guernsey and Associates
Johnson, D.L.	Chair S3/WG62; Chair S12
von Gierke, H.E.	Chair S3/WG39 (S2)
Young, R.W.	Consultant

**OTHERS PRESENT**

Brenig, A.	ASA Standards Manager
Embleton, T.F.W.	ASA Standards Director
Evans, D.J.	NIST, Chair S2
Frank, J.	NIOSH; Chair S3/WG76
Gross, E.E.	Individual Expert S1
Henselman, L.W.	U.S. Army Medical Center
Krug, R.W.	Chair S1/WG17
Marsh, A.H.	Chair S1/WG2
Queen, D.	AES
Schlauch, R.	Chair S3/WG36
Schomer, P.D.	U.S. TAG for ISO/TC 43 and ISO/TC 43/SC1
Shotland, L.	NIH
Wagner, R.	NIST
Wong, G.S.K.	Chair S1

1. **Approval of the Minutes of the Austin, Texas meeting, held on 1 December 1994 (S3/393).**

Upon motion made and seconded, it was

**VOTED** to approve the Minutes of the S3 meeting (**S3/393**) held on 1 December 1994, as circulated.

2. **Organization**

- a) A **list of current working groups** is attached (see **ATTACHMENT A**).
- b) **New working groups** - none to date
- c) **Personnel changes** - none to date
- d) **Work in progress** - for a summary, see **ATTACHMENT B**.

3. Standards approved by ANSI in 1995 and published (or being published) by ASA  
ANSI S3.7-1995 - METHOD FOR COUPLER CALIBRATION OF EARPHONES

Standards published by ASA can be ordered from the following address:

Acoustical Society of America  
Standards and Publications Fulfillment Center  
P.O. Box 1020  
Sewickley, PA 15143-9998

Telephone: (412) 741-1979  
Telefax: (412) 741-0609

**NOTE:** 20% discount on list price is available to ASA individual and sustaining members for all standards published by ASA.

4. Organizational matters and reports on working groups, including reports on letter ballots and international matters

- a) S3/Advisory - Advisory Planning Committee to S3 - R.F. Burkard, Chair

The list of current S3 standards is appended -ATTACHMENT C. Mr. Frank's report is given in ATTACHMENT D.

Mr. Frank went through the items in ATTACHMENT B of the S3 last set of Minutes as they related to the status of S3 documents in progress. The updated status will be included in the Minutes.

For the advisory planning work, Mr. Frank said that Mr. Burkard was making progress.

- b) S3/WG35 Audiometers - R.L. Grason, Chair

At the last meeting, Mr. Grason said that a draft of the revision of ANSI S3.6-1989 had been prepared and circulated to working group members and that a document was expected to be ready for ballot shortly.

Mr. Frank said that Mr. Grason wished to resign once the present standard was published.



4. Organizational matters and reports on working groups, including reports on letter ballots and international matters (continued)

c) S3/WG36 Speech Intelligibility - R.S. Schlauch, Chair

Ms. Marshall's last report is attached (see ATTACHMENT E).

Mr. Schlauch has taken over as Chairman of this working group. He said that the group was reviewing international standards in this area.

d) S3/WG37 Coupler Calibration of Earphones - B. Kruger, Chair

ANSI S3.7-1995 Coupler Calibration of Earphones was approved by ANSI on 10 March 1995 and has been printed.

e) S3/WG39 (S2) - Human Exposure to Mechanical Vibration and Shock - H.E. von Gierke, Chair (Counterpart to ISO/TC 108/SC4)

S3/WG39 last met on 8 June 1994 at Cambridge. The last meeting of ISO/TC 108/SC4 took place from 12 to 16 September 1994 in Prague, Czech Republic.

Mr. von Gierke also said at the last meeting that he would like to find a successor to himself as Chair and asked for individuals interested in the work to contact him.

f) S3/WG43 Method for Calibration of Bone Conduction Vibrator - T. Frank, Chair

ANSI S3.43-1992 Standard Reference Zero for the Calibration of Pure-Tone Bone-Conduction Audiometers was published by ASA.

Mr. Frank reported that the group had not met recently but was monitoring the literature to make sure that nothing, nationally or internationally, had changed.

g) S3/WG48 Hearing Aids - D.A. Preves, Chair

ANSI Standard S3.42-1992 Testing Hearing Aids with a Broad-Band Noise Signal was published by ASA.

Mr. Preves has reported as follows:

- S3.22 draft revision is out for balloting within the working group
- attempting to raise activity level concerning digital cellular telephone interference with hearing aids

4. Organizational matters and reports on working groups, including reports on letter ballots and international matters (continued)

g) S3/WG48 Hearing Aids - D.A. Preves, Chair (continued)

- will begin looking into standardizing digital hearing aid interface
- looking at changes (minor) for S3.35.

At the meeting, Mr. Frank said that the revision of ANSI S3.22-1987 was expected shortly.

h) S3/WG56 Criteria for Background Noise for Audiometric Testing - T. Frank, Chair

ANSI S3.1-1991 the revision of ANSI S3.1-1977 (R 1986) Maximum Permissible Ambient Noise Levels for Audiometric Test Rooms was published by ASA.

Mr. Frank reported at the meeting that this standard does require revision and that the working group would be starting this process.

i) S3/WG58 Hearing Conservation Criteria - D.L. Johnson, Chair

ISO 1999:1990 Acoustics-Determination of occupational noise exposure and estimation of noise-induced hearing impairment was published by ISO. Preparation of the national version of this international standard has taken place.

The completed standard was submitted to S3 for ballot. No major differences currently exist between the proposed national version and the international standard, ISO 1999-1990. The ballot, LB/S3.44/357, draft dated October 1992, was submitted to S3 on 25 January 1993 and closed on 8 March 1993. The results were given in previous Minutes (S3/368).

Mr. Johnson reported that he expected to prepare the document for a second circulation shortly.

j) S3/WG59 Measurement of Speech Levels - H. Levitt, Chair

The proposed standard, ANSI S3.9-199X Method for Measurement of Speech Levels, was sent to S3 ballot (LB/S3.9/377) on 21 January 1994. The ballot was closed on 4 March 1994 with results as given in previous Minutes (S3/385).

A revision of this proposed standard is being prepared by the working group chair and should be presented to S3 for ballot shortly.

4. Organizational matters and reports on working groups, including reports on letter ballots and international matters (continued)

k) S3/WG60 Measurement of Acoustic Impedance and Admittance of the Ear - D. Lilly, Chair

This working group is preparing a revision of ANSI S3.39-1987.

Mr. Frank reported that he would pursue the revision of the standard on this subject, taking whatever steps were needed to arrive at a draft suitable for ballot.

l) S3/WG62 Impulse Noise with Respect to Hearing Hazard - D. Johnson, Chair

The draft ANSI Standard S3.28-1986 for the Evaluation of the Potential Effect on Human Hearing of Sounds with Peak A-Weighted Sound Pressure Levels Above 120 Decibels and Peak C-Weighted Sound Pressure Levels Below 140 Decibels was approved by S3 and published for trial, comment, and criticism for a period of three years (according to ANSI procedures).

Regarding Draft ANSI S3.28-1986, It was agreed at the meeting that a draft standard which was outdated, but available, would be the best outcome for this particular document.

At the meeting, Mr. Johnson said that he planned to prepare a revision of this document, looking at levels about 140 dB.

m) S3/WG67 Manikins - M.D. Burkhard, Chair

This working group currently exists solely for response to international documents.

n) S3/WG71 Artificial Mouths - R. McKinley, Chair

A first draft is expected by November 1995.

Please see ATTACHMENT F for Mr. McKinley's previous report.

o) S2/WG72 Measurement of Auditory Evoked Potentials - R. F. Burkard, Chair

Mr. Frank reported that the draft is almost finished and expected for ballot in S3 shortly.

4. Organizational matters and reports on working groups, including reports on letter ballots and international matters (continued)

p) S3/WG73 Bioacoustical Terminology - W.J. Galloway, Chair

ANSI S1.1-1994 Acoustical Terminology (a revision of ANSI S1.1-1960) was approved by ANSI on 4 January 1994 and has been published by ASA.

At the last meeting, Mr. Burkard noted that Mr. Galloway had done a yeoman job in preparing the proposed revision of ANSI S3.20-1973 on Bioacoustical Terminology for ballot. The document was circulated for ballot (LB/S3.20/395) on 6 February 1995 and the ballot closed on 20 March 1995 with results as given in ATTACHMENT G.

Proposed ANSI S3.20-199X on Bioacoustical Terminology was also submitted to ANSI for public comment (17 March to 16 May 1995), and to ANSI for formal submittal on 19 May 1995.

q) S3/WG75 Auditory Masking - S. Buus, Chair

No word has been heard from Mr. Buus on the activities of his working group to date.

Mr. Frank said that he had discussed this working group with Bob Burkard and was ready to disband it.

r) S3/WG76 Computerized Audiometry - J. Franks, Chair

At the meeting, Mr. Franks said that he recommended that Tony Miltich become chair of this working group, and that Mr. Miltich was willing to do so. Details would be sent to Mr. Frank, S3 Chair.

s) S3/WG78 Thresholds - W. Yost, Chair

The scope of this working group is to provide a liaison with ISO, IEC and other national working groups for standards dealing with auditory thresholds and procedures to measure these threshold. No meetings are planned.

t) S3/WG79 Methods for Calculation of the Speech Intelligibility Index (Revision of ANSI S3.5-1969 (R 1986)) - C.V. Pavlovic, Chair

The first draft revision of ANSI S3.5-1969 was sent to S3 ballot (LB/S3.5/372) on October 1993. The ballot was closed on 8 December 1993 with results as given in previous Minutes.

4. Organizational matters and reports on working groups, including reports on letter ballots and international matters (continued)

t) S3/WG79 Methods for Calculation of the Speech Intelligibility Index (Revision of ANSI S3.5-1969 (R 1986)) - C.V. Pavlovic, Chair (continued)

Mr. Pavlovic has reported as follows:

After a pause due to my change of jobs ( as well as to a prior voting problem), I am in the process of reconciling objections and preparing material to satisfy the negative vote.

u) S3/WG80 Probe-Tube Measurements of Hearing Aid Performance - W. Cole, Chair

The working group met on 2 December 1994. A report of that meeting is given in ATTACHMENT H.

At the meeting, Mr. Frank said that Mr. Cole expected to have a document shortly, and that it would be presented to ISO, whose standard was expected to be modeled after the national document.

v) S3/WG81 Hearing Assistance Technologies - M. Wynne, Chair

Mr. Burkard reported at the meeting that Mr. Kaster had died and that Mr. Wynne was continuing the work.

w) S3/WG82 Basic Vestibular Function Test Battery - C. Wall III, Chair

Mr. von Gierke reported at the meeting that he had received a document, but that it did not conform to the ASACOS editorial guidelines.

x) S3/WG83 Sound Field Audiometry - T. Letowski, Chair

Mr. Burkard reported at the last meeting that he had received a report from Mr. Letowski, as follows:

An experiment is under way to determine both binaural and monaural sound-field hearing thresholds for a typical audiometric room. The data should be collected by the end of January 1995. The final Technical Report will be discussed at the ASA Spring meeting and submitted to the Standards Secretariat after corrections.

4. Organizational matters and reports on working groups, including reports on letter ballots and international matters (continued)

y) S3/WG84 Otacoustic Emissions - G. R. Long, Chair

This new working group was recently established by S3 and is beginning its work (see ATTACHMENT I)

Mr. Frank reported that the working group was starting to work on the development of a standard, and that there would be a classification of instrumentation.

1) S3 Liaison Working Groups

(a) S3/L-1 - U.S. TAG Liaison to IEC/TC 87 Ultrasonics - W. Nyborg, Chair

See under 5 a) 2), below.

5. International Matters

a) International Electrotechnical Commission (IEC)

1) IEC/TC 29 Electroacoustics - V. Nedzelnitsky, Technical Advisor

A list of documents submitted to the U.S. for vote and/or comment is given in ATTACHMENT J. Mr. Nedzelnitsky's report is given in ATTACHMENT K.

The next meeting of IEC/TC 29 will be held in Pretoria, South Africa, from Monday 19 to Friday 23 February 1996.

2) Liaison with IEC/TC 87 Ultrasonics - P.D. Edmonds, U.S. Technical Advisor

Please see ATTACHMENT L for Mr. Nyborg's report, representing the S3/TAG Liaison to IEC/TC 87 - S3/L-1).

The next meeting of IEC/TC 87 will be held from 20 to 24 March 1995 in San Francisco, CA.

5. International Matters (continued)

b) International Organization for Standardization (ISO)

1) ISO/TC 43 Acoustics and ISO/TC 43/SC1 Noise - H.E. von Gierke, U.S. TAG Chair, P.D. Schomer, U.S. TAG Vice Chair

A report has been prepared (see ATTACHMENT M). Mr. Schomer's report is given in ATTACHMENT N. The next meeting of ISO/TC 43 and ISO/TC 43/SC1 will be held in Pretoria, South Africa, from Monday 26 February to Friday, 1 March 1996.

2) ISO/TC 108/SC4 Human Exposure to Mechanical Vibration and Shock - H.E. von Gierke, TAG Chair

A report on the overall activities of ISO/TC 108 (including ISO/TC 108/SC4) is given in ATTACHMENT O.

At the meeting, Mr. von Gierke said that the Subcommittee expected to meet in the Spring of 1996 in Warsaw. He noted that two documents were expected to be received for ballot shortly, one the revision of ISO 2631, and the other on human impact treating.

6. Review of Standards more than five years in existence

Section 4.4 of the ANSI Procedures for the Development and Coordination of American National Standards requires that each complete American National Standard (including its supplements and addenda) be reviewed at least every five years to determine whether it should be reaffirmed, revised or withdrawn.

Provision is made for extensions of time, except that no extension is granted beyond ten years from the date of approval by ANSI.

- a) It should be noted, with respect to ANSI S3.19-1974 (R 1979), that ASACOS decided (at its meeting held on 21 May 1990), to continue this standard under S3 jurisdiction, with its S3 designation, until such time as it is revised. Once revised, it will assume an S12 designation, under the jurisdiction of Accredited Standards Committee S12, Noise.

6. Review of Standards more than five years in existence (continued)

- b) Recommendations for the reaffirmation of the following standards have been received and have been (or will be) balloted in S3:

Title of Standard

Recommendation by

- **ANSI S3.2-1989**  
Method for Measuring the Intelligibility of Speech  
over Communication Systems

---

L. Marshall

- **ANSI S3.25-1989**  
An Occluded Ear Simulator

---

B. Kruger

A ballot was sent to S3 (**LB/S3/387**) on 15 August 1994 for the proposed reaffirmation of the above two standards. This ballot was closed on 26 September 1994 with results as given in the last Minutes (**S3/393**). The proposed reaffirmation of the two standards was sent to ANSI for public comment on 12 October 1994 and to ANSI for formal approval on 1 April 1995.

- **ANSI S3.40-1989**  
Guide for the Measurement and Evaluation of Gloves  
which are used to Reduce Exposure to Vibration  
Transmitted to the Hand

---

H.E. von Gierke

Upon recommendation, a ballot to reaffirm the above standard was sent to S3 (**LB/S3.40/392**) on 11 November 1994. The ballot was closed on **23 December 1994** with results as given in **ATTACHMENT P**. The proposed reaffirmation was sent to ANSI for public comment (public comment period 31 March to 30 May 1995).

- **ANSI S3.32-1982 (R 1990)**  
Mechanical Vibration and Shock Affecting Man  
- Vocabulary

---

H. E. von Gierke  
W. J. Galloway

Upon recommendation to reaffirm the above standard, a ballot was sent to S3 (**LB/S3.32/398**). The ballot was circulated on 2 May 1995 and will close on 12 June 1995.

**NOTE:**

The above ballot was closed on 12 June 1995 with results as given in **ATTACHMENT Q**.



7. **Extensions of time for formal submittal of proposed standards to ANSI**

According to ANSI procedures, once a proposed standard has been submitted to ANSI for **Public Comment**, the document must be submitted to ANSI for **formal approval** within a specified period of time, or be withdrawn from consideration. (This would entail the document's presentation again, starting with the public comment process within ANSI.)

Accordingly, requests for extensions of time for formal submittal are made to ANSI in relevant cases. Therefore, further to the request of the Standards Secretariat, ANSI has granted extensions of time for the following proposed standards:

<b>ANSI BSR Draft No.</b>	<b>ANSI Extension Granted Until</b>
S1.9	31 December 1995
S1.43	31 December 1995
S3.5	31 December 1995
S12.17	30 June 1995
S12.19	31 December 1995

8. **New International Standards from ANSI**

- **CEI/IEC Publication 118-1-1995 Third Edition - Hearing Aids: Part 1:** Hearing aids with induction pick-up coil input
- **CEI/IEC 1265 Publication 1265-1995 First Edition - Electroacoustics:** Instruments for measurement of aircraft noise - Performance requirements for systems to measure one-third-octave band sound pressure levels in noise certification of transport-category aeroplanes
- **IEC Publication 118-7 Amendment 1-1994 Hearing Aids: Part 7:** Measurement of the performance characteristics of hearing aids for quality inspection for delivery purposes
- **IEC Publication 118-0 Amendment 1-1994 Hearing Aids: Part 0:** Measurement of electroacoustical characteristics
- **ISO 389-2-1994 - Acoustics - Reference zero for the calibration of audiometric equipment - Part 2:** reference equivalent threshold sound pressure levels for pure tones and insert earphones
- **ISO 389-3:1994 - Acoustics - Reference zero for the calibration of audiometric equipment - Part 3:** Reference equivalent threshold force levels for pure tones and bone vibrators.
- **ISO 389-4:1994 - Acoustics - Reference zero for the calibration of audiometric equipment - Part 4:** Reference levels for narrow-band masking noise.

8. New International Standards from ANSI (continued)

- IEC 645-3-1994 - Audiometers: Part 3: Auditory test signals of short duration for audiometric and neuro-otological purposes
- IEC 645-4-1994 - Audiometers: Part 4: Equipment for extended high-frequency audiometry

9. Procedural Ballots

- a) According to ANSI's procedures, under which the Accredited Standards Committees operate, the Officers of the Standards Committees are to be confirmed (at the beginning of their terms), as well as Individual Experts (the latter to be confirmed annually) by the respective Standards Committees.

The Officers and Individual Experts are proposed by the ASA Committee on Standards (ASACOS), as the Secretariat for the Standards Committees, in connection with the Chairs of the respective Standards Committees.

A Letter Ballot was circulated to S3 on the proposed appointments for 1995/1996 (LB/S3/394) on 20 December 1994. The ballot was closed on 31 January 1995 with results as given in ATTACHMENT R. The nominations were approved unanimously and the respective appointments will therefore take effect following the June 1995 meeting of ASA.

- b) A ballot for approval of a new work item for Accredited Standards Committee S3 on OTACOUSTIC EMISSIONS was sent to S3 (LB/S3/389) on 10 October 1994. The ballot was closed on 21 November 1994 with results as given in ATTACHMENT S. The new working group, S3/WG84, will be chaired by G.R. Long (see ATTACHMENT A for a listing of the scope).

10. Other Business

Project Initiation Notification System (PINS) forms requested by ANSI

The Standards Secretariat has provided ANSI, with a current list of S3 projects for use under ANSI's Project Initiation Notification System (PINS). These are expected to be tabulated in a computerized system eventually by ANSI.

## 11. New Business

### a) Discussion of standards in the field of animal bioacoustics

At the last meeting, Mr. Embleton (ASA Standards Director) brought up the subject of establishing standards related to hearing thresholds for marine mammals. This subject came about because there appear to be no standards in the area, and on account of an article which received wide publicity related to sound levels in the ocean and their effects upon marine mammals. The facts noted in this article were based on erroneous information and apparently caused various difficulties in terms of obtaining licenses for doing experimental acoustical work with marine mammals.

Ms. Ann Bowles, who is the current Chair of the ASA Technical Specialty Group on Animal Bioacoustics, introduced herself and spoke to some of the political problems facing the community which concerns itself with this area. She said that in having no standards at all, this specialty group was at the same stage as the Acoustical Society some 60 years ago and therefore needed guidance in what steps to take to make factual information available and to develop data which would allow scientists to understand these phenomena. Once some ideas can be developed and pursued, this could be a basis for the eventual development of standards.

Mr. Burkard suggested that Ms. Bowles or someone designated by her technical specialty group attend both S3 (Bioacoustics) and S12 (Noise) Standards Committee meetings in order to become acquainted with the work and the processes involved. Also, Ms. Bowles would receive a copy of the newly prepared Editorial Guidelines which set forth the requirements for the contents of a standard when it is developed.

Mr. Embleton also noted that there was a provision for the development of a technical report, in case it was not feasible to develop a standard, also covered in the Editorial Guidelines document. It was agreed that Ms. Bowles would contact both the S3 and S12 Chairs individually to set up a discourse on the subject, and to determine the best path on which to proceed.

At the meeting, Mr. Frank noted that he had not heard from Ms. Bowles and that he proposed no action on this topic. He also questioned whether, in fact, the subject belonged within Accredited Standards Committee S3, on Bioacoustics.

### b) Editorial Revision of the Accredited Standards Committee Procedures

The Accredited Standards Committee Procedures for the Development and Coordination of American National Standards, as followed by the Acoustical Society of America, in its responsibility for the Secretariat of the four S Committees (S1, S2, S3 and S12) were approved by ANSI on 26 April 1988, with amendments to those Procedures approved by ANSI on 19 August 1991.

11. New Business (continued)

b) Editorial Revision of the Accredited Standards Committee Procedures (continued)

The Acoustical Society has now made editorial changes to these Procedures, in accordance with the changes in the ANSI Procedures as noted in the 9 September 1993 Procedures to ensure that, in all respects, they are in compliance with the ANSI Procedures. Additionally, the editorial changes made to the Accredited Standards Committee Procedures followed by the Acoustical Society will encompass, and do not deviate from, any of the changes in the ANSI Procedures (circulated as of 14 October 1994).

Accordingly, these amended procedures were submitted to ANSI for approval (November 1994 and January 1995). We have received a letter from ANSI dated 3 April 1995, acknowledging that the amendments to the accredited standards committee procedures are not considered substantive and that the ANSI accreditation of the four S Committees (S1, S2, S3 and S12) is maintained using the revised operating procedures (see ATTACHMENT T).

12. Future Meetings of S3

The next meeting of Accredited Standards Committee S3, Bioacoustics, will be held on Thursday, 30 November 1995, in St. Louis, Mo., commencing at 3:00 p.m.

13. Adjournment

The S3 meeting was adjourned at 2:30 P.M.

  
Avril Brenig  
Standards Manager

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**ACCREDITED STANDARDS COMMITTEE ON BIOACOUSTICS - S3**

**SECRETARIAT:** Acoustical Society of America

**SCOPE:** Standards, specifications, methods of measurement and test, and terminology in the fields of mechanical shock and physiological acoustics, including aspects of general acoustics, shock, and vibration which pertain to biological safety, tolerance and comfort.

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<b>WORKING GROUP</b>	<b>TITLE AND SCOPE</b>	<b>CHAIR</b>
(a) S3/Advisory	<p><u>S3 Advisory Planning Committee</u> - Be cognizant of standards needs within the scope of the Committee, and organize those needs in accordance with priority, and other relevant factors, into a coherent three year plan for Committee activity. This three year plan for the preparation of standards should include those which need updating, having regard to the international work items and standards, and the need for timely review (reaffirmations, revisions, withdrawals, etc.) of all national standards, and the priority of new standards needs.</p> <p>The plan of action should be developed with attention to (i) the overall Committee scope, (ii) its technological needs, (iii) the relation of national to international standardization, (iv) the rate of development of new standards, and (v) the timeliness of the preparation of revisions of standards.</p>	<u>R.F. Burkard</u>

WORKING GROUP	TITLE AND SCOPE	CHAIR
(b) S3/WG35	<u>Audiometers (counterpart to IEC/TC 29/WG10, ISO/TC 43/WG1 and ISO/TC 43/WG3)</u> - To review IEC and ISO documents concerning audiometers.	<u>R.L. Grason</u>
(c) S3/WG36	<u>Speech Intelligibility</u> - Preparation of recommended methods for the measurement of the intelligibility of speech as affected by spectral, amplitude and temporal distortions of the speech signals, and by noises that arise from or in the acoustical, electrical (if any) and ear receptor paths used for transmitting speech from the talker to the listener.	<u>R.S. Schlauch</u>
S3/WG36 (SG-2)	<u>Subgroup 2 - Speech Audiometry</u> - Standardization of speech and audiometry procedures; speech discrimination tests for clinical and diagnostic use.	<u>E.J. Kreul</u>
(d) S3/WG37	<u>Coupler Calibration of Earphones (counterpart to IEC/TC 29/WG3)</u> - Coordinate ANSI projects with IEC working groups. Prepare revisions to existing earphone calibration standards, prepare new standards for circumaural earphones, study and prepare standards for simulation of the human ear for measurement purposes.	<u>B. Kruger</u>
(e) S3/WG39 (S2)	<u>Human Exposure to Mechanical Vibration and Shock (counterpart to ISO/TC 108/SC4)</u> - Standardization in the field of shock, vibration and related biodynamic environments with regard to health, safety, performance and comfort criteria and guidelines regarding the effects of occupational and non-occupational exposures on the human population (environments of primary interest are: vibration, rotational oscillations, shock and impact transmitted to the whole-body or parts thereof). Preparation of standard terminology and characterization of the biodynamic properties of humans with and without support and restraint devices by means of biodynamic models or analogues is also included as a basis for the description of the physical, behavioral and physiological effects of the mechanical environments under consideration.	<u>H.E. von Gierke</u>
(f) S3/WG43	<u>Method for Calibration of Bone Conduction Vibrator</u> - (a) U.S. standards on audiometric bone vibration calibration; (b) review of related international standards.	<u>T.A. Frank</u>
(g) S3/WG48	<u>Hearing Aids</u> - (a) all aspects of hearing aid measurement except couplers; (b) review of related international documents.	<u>D.A. Preves</u>

WORKING GROUP	TITLE AND SCOPE	CHAIR
(h) S3/WG56	<u>Criteria for Background Noise for Audiometric Testing</u> - To establish maximum tolerable background noise levels during audiometric tests (revision of S3.1-1977 Criteria for Permissible Ambient Noise During Audiometer Testing).	<u>T.A. Frank</u>
(i) S3/WG58	<u>Hearing Conservation Criteria (counterpart to ISO/TC 43/SC1/WG19 (ISO 1999))</u> - To determine hearing conservation criteria.	<u>D.L. Johnson</u>
(j) S3/WG59	<u>Measurement of Speech Levels</u> - To develop a standard method for measurement of speech and speech-to-noise ratios in technical reports and equipment specifications. The standard should provide the best measurement of speech levels and indicate the number of samples, weighting (overall vs. A-level) and total length of speech sample. In addition, approximations may be suggested to determine speech for simple sound level meter observations. The standard would not consider microphone type, placement or other specification for the physical measurement of speech, but would concentrate on assessment after the speech is in recorded form.	<u>H. Levitt</u>
(k) S3/WG60	<u>Measurement of Acoustic Impedance and Admittance of the Ear</u> - The measurement of acoustic immittance (acoustic impedance or acoustic admittance) within the human external auditory canal. The measurements are to ensure that acoustic-immittance measurements will be substantially the same for a given individual when these measurements are obtained with any instruments that meet the specifications and tolerance outlined in a standard, and when comparable test conditions prevail.	<u>D.J. Lilly</u>
(l) S3/WG62	<u>Impulse Noise with Respect to Hearing Hazard</u> - To develop criteria for predicting the changes in hearing due to human exposure to impulsive noise.	<u>D.L. Johnson</u>
(m) S3/WG67	<u>Manikins - (counterpart to IEC/TC 29/WG13)</u> - To prepare a standard describing a device that simulates a person for acoustic measurements. Monitor and coordinate with international standards.	<u>M.D. Burkhard</u>
(n) S3/WG71	<u>Artificial Mouths</u> - To develop a standard specification for sound sources used as artificial mouths to measure the performance of microphones positioned close to the talker.	<u>R.L. McKinley</u>

WORKING GROUP	TITLE AND SCOPE	CHAIR
(o) S3/WG72	<u>Measurement of Auditory Evoked Potentials</u> - To draft a standard dealing with the instrumentation and methods of calibration associated with the measurements of auditory evoked potentials.	<u>R.F. Burkard</u>
(p) S3/WG73	<u>Bioacoustical Terminology</u> - To prepare a draft standard on bioacoustical terminology to supersede ANSI S3.20-1973.	<u>W.J. Galloway</u>
(q) S3/WG75	<u>Auditory Masking</u> - To define a psychological frequency scale and auditory filter characteristics. These definitions permit calculation of detection threshold for a signal in the presence of noise. The listeners are assumed to have normal hearing and the noise to be continuous in the time and frequency domains.	<u>S.R. Buus</u>
(r) S3/WG76	<u>Computerized Audiometry</u> - Standardization of computer applications to audiometry, including automated psychophysical procedures.	<u>J. Franks</u>
(s) S3/WG78	<u>Thresholds</u> - To provide a liaison with ISO, IEC and other national working groups for standards dealing with auditory thresholds and procedures to measure these thresholds.	<u>W.A. Yost</u>
(t) S3/WG79	<u>Methods for Calculation of the Speech Intelligibility Index</u> - To consider revision of the current standard on calculation of the articulation index: ANSI S3.5-1969 (R 1986).	<u>C.V. Pavlovic</u>
(u) S3/WG80	<u>Probe-tube Measurements of Hearing Aid Performance</u> - To develop standards for the determination of the real ear electroacoustic performance of hearing aids in situ.	<u>W.A. Cole</u>
(v) S3/WG81	<u>Hearing Assistance Technologies</u> - To provide definitions for various types of assistive listening devices. To determine which assistive listening devices can be measured acoustically and to provide standard procedures for such acoustical measurement.	<u>M.K. Wynne</u>
(w) S3/WG82	<u>Basic Vestibular Function Test Battery</u> Standardization of a basic vestibular function test battery consisting of six separate tests: spontaneous nystagmus, gaze-evoked nystagmus, saccade test, pursuit testing, positional nystagmus and caloric testing.	<u>C. Wall III</u>



WORKING GROUP	TITLE AND SCOPE	CHAIR
(x) S3/WG83	<u>Sound Field Audiometry</u> To develop a standard specifying parameters for sound-field audiometry, instrumentation and tolerances for measuring stimuli presented in a sound-field, and reference threshold values for measurement of hearing.	<u>T.R. Letowski</u>
(y) S3/WG84	<u>Otoacoustic Emissions</u> To develop a standard for: 1) the classification of instruments capable of recording different classes of OAEs, 2) the specification and classification of various measurement and recording parameters associated with OAEs, and 3) providing definitions relative to all aspects of OAEs.	<u>G.R. Long</u>
<u>S3 LIAISON WORKING GROUPS</u>		
(z) S3/L-1	<u>S3 TAG Liaison to IEC/TC 87 Ultrasonics</u> - To provide liaison on documents and activities emanating from IEC/TC 87 Ultrasonics.	<u>W.L. Nyborg</u>

## STATUS REPORT

ACCREDITED STANDARDS COMMITTEE S3  
BIOACOUSTICS

DESIGNATION/ EDITION	SUBJECT OR TITLE	STATUS	ACTIVITY	METHOD	COMMENTS OR EXPECTED DATE OF SUBMISSION TO ANSI
S3.1-1991	Maximum Permissible Ambient Noise Levels for Audiometric Test Rooms (A revision of S3.1-1977 (R 1986))	UD			
S3.2-1989 (R 1995)	Monosyllabic Word Intelligibility, Method for Measurement (S3/WG36)	UD		S	
S3.3-1960 (R 1990)	Electroacoustical Characteristics of Hearing Aids, Methods for Measurement (S3/WG48)	RV		S	Will be withdrawn after S3.22 is revised and balloted
S3.4-1980 (R 1992)	Procedure for the Computation of Loudness of Noise	UD		S	
S3.5-1969 (R 1986)	Articulation Index, Methods for the Calculation of the (S3/WG79)	RV		S	Resolving negative vote
S3.6-1989	Specification for Audiometers (revision ANSI S3.6-1969) (S3/WG35)	RV		S	4th draft revision completed, should be ready for ballot vote by 9/1/95
S3.7-1995	Coupler Calibration of Earphones, Method for (S3/WG37)	UD		S	Just printed and currently available
STATUS		ACTIVITY		METHOD	
NS - NEW STD IN PROCESS	NR - NEEDS REVIEW	0-NONE	4-ANSI STANDARDS ACTION	C-ACCREDITED CANVASS	
RF - REAFFIRMATION IN PROC.	AP - ANSI APPROVED	1-FORMATIVE STAGE	5-OBJECTIONS BEING CONSIDERED	O-ACCREDITED ORGANIZATION	
RV - REVISION IN PROCESS	OP - OUT OF PRINT	2-DRAFTING STANDARD	6-ANSI CONSIDERING APPROVAL	S-ACCREDITED STDS. COMMITTEE	
WD - WITHDRAWAL IN PROCESS	NA - NOT YET AVAIL.	3-VOTING ON PROPOSAL		X-NOT INTENDED FOR ANSI	
ES - ENVIRONMENTAL SOUND	UD - UP-TO-DATE				
SP - SUBMITTED PINS FORM					

## STATUS REPORT

ACCREDITED STANDARDS COMMITTEE S3  
BIOACOUSTICS

DESIGNATION/ EDITION	SUBJECT OR TITLE	STATUS	ACTIVITY	METHOD	COMMENTS OR EXPECTED DATE OF SUBMISSION TO ANSI
S3.8-1967 (R 1976)	Hearing Aid Performance, Method of Expressing (S3/WG48)	WD	S	S	Withdrawn; superseded by S3.22-1982
S3.9-199X (S3/WG59)	Method for Measuring Speech Levels	NS	5	S	Went out for ballot Received criticism. Document being re-written and should be ready for ballot by Fall, 1995
S3.13-1987 (R 1993)	Mechanical Coupler for Measurement of Bone Vibrators	UD	S		
S3.18-1979 (R 1993)	Human Exposure to Whole-Body Vibration, Guide for the Evaluation (S3/WG39 (S2))	UD	S		
S3.19-1974 (R 1990)	Method for the Measurement of Real-Ear Protection of Hearing Protectors and Physical Attenuation of Earmuffs (see also under S12/WG10--partially revised by ANSI S12.6-1984)	RV	1	S	Will be withdrawn once an S12 Standard is passed
STATUS		ACTIVITY		METHOD	
NS - NEW STD IN PROCESS	NR - NEEDS REVIEW	0-NONE	4-ANSI STANDARDS ACTION	C-ACCREDITED CANVASS	
RF - REAFFIRMATION IN PROC.	AP - ANSI APPROVED	1-FORMATIVE STAGE	5-OBJECTIONS BEING CONSIDERED	O-ACCREDITED ORGANIZATION	
RV - REVISION IN PROCESS	OP - OUT OF PRINT	2-DRAFTING STANDARD	6-ANSI CONSIDERING APPROVAL	S-ACCREDITED STDS. COMMITTEE	
WD - WITHDRAWAL IN PROCESS	NA - NOT YET AVAIL.	3-VOTING ON PROPOSAL		X-NOT INTENDED FOR ANSI	
ES - ENVIRONMENTAL SOUND	UD - UP-TO-DATE				
SP - SUBMITTED PINS FORM					

## STATUS REPORT

ACCREDITED STANDARDS COMMITTEE S3  
BIOACOUSTICS

DESIGNATION/ EDITION	SUBJECT OR TITLE	STATUS	ACTIVITY	METHOD	COMMENTS OR EXPECTED DATE OF SUBMISSION TO ANSI
S3.20-1995	Bioacoustical Terminology ( <u>S3/WG73</u> )	UD		S	Being printed
S3.21-1978 (R 1992)	Manual Pure-Tone Threshold Audiometry, Method for ( <u>S3/WG35</u> )	UD;ES		S	Revision will be starting in Fall 1995
S3.22-1987	Specification of Hearing Aid Characteristics (revision of ANSI S3.22-1982) ( <u>S3/WG48</u> )	RV		S	Draft revision out to WG for comment
S3.25-1989 (R 1995)	Occluded Ear Simulator (revision of ANSI S3.25-1979) ( <u>S3/WG37</u> )	UD		S	Recently reaffirmed
DRAFT ANSI S3.28-1986	Methods for the Evaluation of the Potential Effects on Human Hearing of Sounds with Peak A-Weighted Sound Pressure Levels Above 120 Decibels and Peak C-Weighted Sound Pressure Below 140 Decibels ( <u>S3/WG62</u> )	UD	5	S	Published for trial, comment comment and criticism for a period of three years

STATUS	ACTIVITY	METHOD
NS - NEW STD IN PROCESS RF - REAFFIRMATION IN PROC. RV - REVISION IN PROCESS WD - WITHDRAWAL IN PROCESS ES - ENVIRONMENTAL SOUND SP - SUBMITTED PINS FORM	0-NONE 1-FORMATIVE STAGE 2-DRAFTING STANDARD 3-VOTING ON PROPOSAL	C-ACCREDITED CANVASS O-ACCREDITED ORGANIZATION S-ACCREDITED STDS. COMMITTEE X-NOT INTENDED FOR ANSI

## STATUS REPORT

ACCREDITED STANDARDS COMMITTEE S3  
BIOACOUSTICS

DESIGNATION/ EDITION	SUBJECT OR TITLE	STATUS	ACTIVITY	METHOD	COMMENTS OR EXPECTED DATE OF SUBMISSION TO ANSI
S3.29-1983 (R 1990)	Evaluation of Human Exposure to Vibration in Buildings (S3/WG39 (S2))				Needs revision or reaffirmation
S3.32-1982 (R 1990)	Mechanical Vibration and Shock Affecting Man-Vocabulary - ISO 5805-1981 (S3/WG39(S2))	RF		S	Recommended for reaffirmation 4/4/95
S3.34-1986 (R 1992)	Guide for the Measurement and Evaluation of Human Exposure to Vibration Transmitted to the Hand (S3/WG39(S2))	UD		S	
S3.35-1985 (R 1990)	Method for Measurement of Performance Characteristics of Hearing Aids Under Simulated in situ Working Conditions (S3/WG48)	UD		S	Will be revised ASAP
S3.36-1985 (R 1990)	Specification for a Manikin for Simulated in situ Airborne Acoustic Measurements (S3/WG67)	RF		S	
S3.37-1987 (R 1992)	Preferred Earhook Nozzle Thread for Postauricular Hearing Aids (S3/WG48)	UD		S	
STATUS					
STATUS		ACTIVITY			METHOD
NS - NEW STD IN PROCESS	NR - NEEDS REVIEW	0-NONE	4-ANSI STANDARDS ACTION	C-ACCREDITED CANVASS	
RF - REAFFIRMATION IN PROC.	AP - ANSI APPROVED	1-FORMATIVE STAGE	5-OBJECTIONS BEING CONSIDERED	O-ACCREDITED ORGANIZATION	
RV - REVISION IN PROCESS	OP - OUT OF PRINT	2-DRAFTING STANDARD	6-ANSI CONSIDERING APPROVAL	S-ACCREDITED STDS. COMMITTEE	
WD - WITHDRAWAL IN PROCESS	NA - NOT YET AVAIL.	3-VOTING ON PROPOSAL		X-NOT INTENDED FOR ANSI	
ES - ENVIRONMENTAL SOUND	UD - UP-TO-DATE				
SP - SUBMITTED PINS FORM					

## STATUS REPORT

ACCREDITED STANDARDS COMMITTEE S3  
BIOACOUSTICS

DESIGNATION/ EDITION	SUBJECT OR TITLE	STATUS	ACTIVITY	METHOD	COMMENTS OR EXPECTED DATE OF SUBMISSION TO ANSI
S3.39-1987	Specifications for Instruments to Measure Aural Acoustic Impedance and Admittance (Aural Acoustic Immittance) (S3/WG6Q)	RV		S	
S3.40-1989 (R 1995)	Measurement and Evaluation of Gloves Which are Used to Reduce Exposure to Vibration Transmitted to the Hand (S3/WG39(S2))	RV		S	
S3-W-39	The Effects of Shock and Vibration on Man (S3/WG39(S2))	WD		S	
S3.41-1990	Audible Emergency Evacuation Signal (counterpart to ISO 8201:1987) (S3/WG63)	RF		S	
S3.42-1992	Testing Hearing Aids with a Broad-Band Noise Signal (S3/WG48)	SP;UD		S	
S3.43-1992	Standard Reference Zero for the Calibration of Pure-Tone Bone-Conduction Audiometers (S3/WG43)	SP;UD		S	Will be withdrawn once S3.6 revision is balloted
STATUS	ACTIVITY	METHOD			
NS - NEW STD IN PROCESS RF - REAFFIRMATION IN PROC. RV - REVISION IN PROCESS WD - WITHDRAWAL IN PROCESS ES - ENVIRONMENTAL SOUND SP - SUBMITTED PINS FORM	NR - NEEDS REVIEW AP - ANSI APPROVED OP - OUT OF PRINT NA - NOT YET AVAIL. UD - UP-TO-DATE	0-NONE 1-FORMATIVE STAGE 2-DRAFTING STANDARD 3-VOTING ON PROPOSAL	4-ANSI STANDARDS ACTION 5-OBJECTIONS BEING CONSIDERED 6-ANSI CONSIDERING APPROVAL	C-ACCREDITED CANVASS O-ACCREDITED ORGANIZATION S-ACCREDITED STDS. COMMITTEE X-NOT INTENDED FOR ANSI	

## STATUS REPORT

ACCREDITED STANDARDS COMMITTEE S3  
BIOACOUSTICS

DESIGNATION/ EDITION	SUBJECT OR TITLE	STATUS	ACTIVITY	METHOD	COMMENTS OR EXPECTED DATE OF SUBMISSION TO ANSI
S3.44-199x	Determination of Occupational Noise Exposure and Estimation of Noise - Induced Hearing Impairment, Methods for the (counterpart to ISO 1999:1990) (S3/WG58)	NS;SP	3	S	Being prepared for ballot
S3.XX	Assistive Listening Devices (S3/WG81)	SP;NS	1		
S3.XX	Probe-Tube Measurements of Hearing Aid Performance (S3/WG80)	NS	1		
S3.XX	Basic Vestibular Function Test Battery (S3/WG82)	NS	1		

STATUS		ACTIVITY		METHOD
NS - NEW STD IN PROCESS	NR - NEEDS REVIEW	0-NONE	4-ANSI STANDARDS ACTION	C-ACCREDITED CANVASS
RF - REAFFIRMATION IN PROC.	AP - ANSI APPROVED	1-FORMATIVE STAGE	5-OBJECTIONS BEING CONSIDERED	O-ACCREDITED ORGANIZATION
RV - REVISION IN PROCESS	OP - OUT OF PRINT	2-DRAFTING STANDARD	6-ANSI CONSIDERING APPROVAL	S-ACCREDITED STDS. COMMITTEE
WD - WITHDRAWAL IN PROCESS	NA - NOT YET AVAIL.	3-VOTING ON PROPOSAL		X-NOT INTENDED FOR ANSI
ES - ENVIRONMENTAL SOUND	UD - UP-TO-DATE			
SP - SUBMITTED PINS FORM				

S3 STANDARDS ON BIOACOUSTICS

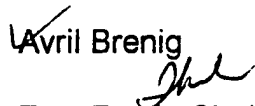
- |     |                                 |  |
|-----|---------------------------------|--|
| 1)  | <u>ANSI S3.1-1991</u>           | Maximum Permissible Ambient Noise Levels for Audiometric Test Rooms  |
| 2)  | <u>ANSI S3.2-1989 (R 1995)</u>  | Method for Measuring the Intelligibility of Speech over Communication Systems                                |
| 3)  | <u>ANSI S3.3-1960 (R 1990)</u>  | Methods for Measurement of Electro-acoustical Characteristics of Hearing Aids                                |
| 4)  | <u>ANSI S3.4-1980 (R 1992)</u>  | Procedure for the Computation of Loudness of Noise   |
| 5)  | <u>ANSI S3.5-1969 (R 1986)</u>  | Methods for the Calculation of the Articulation Index  |
| 6)  | <u>ANSI S3.6-1989</u>           | Specification for Audiometers  |
| 7)  | <u>ANSI S3.7-1995</u>           | Method for Coupler Calibration of Earphones  |
| 8)  | <u>ANSI S3.13-1987 (R 1993)</u> | Mechanical Coupler for Measurement of Bone Vibrators   |
| 9)  | <u>ANSI S3.14-1977 (R 1993)</u> | Rating Noise with Respect to Speech Interference   |
| 10) | <u>ANSI S3.18-1979 (R 1993)</u> | Guide for the Evaluation of Human Exposure to Whole-Body Vibration   |
| 11) | <u>ANSI S3.19-1974 (R 1990)</u> | Method for the Measurement of Real-Ear Protection of Hearing Protectors and Physical Attenuation of Earmuffs |
| 12) | <u>ANSI S3.20-1995</u>          | Bioacoustical Terminology  |
| 13) | <u>ANSI S3.21-1978 (R 1992)</u> | Method for Manual Pure-Tone Threshold Audiometry   |
| 14) | <u>ANSI S3.22-1987</u>          | Specification of Hearing Aid Characteristics   |
| 15) | <u>ANSI S3.25-1989 (R 1995)</u> | An Occluded Ear Simulator  |



- |     |                                 |  |
|-----|---------------------------------|--|
| 16) | <u>DRAFT ANSI S3.28-1986</u>    | Methods for the Evaluation of the Potential Effect on Human Hearing of Sounds with Peak A-Weighted Sound Pressure Levels Above 120 Decibels and Peak C-Weighted Sound Pressure Levels Below 140 Decibels |
| 17) | <u>ANSI S3.29-1983 (R 1990)</u> | Guide to the Evaluation of Human Exposure to Vibration in Buildings  |
| 18) | <u>ANSI S3.32-1982 (R 1990)</u> | Mechanical Vibration and Shock Affecting Man - Vocabulary  |
| 19) | <u>ANSI S3.34-1986 (R 1992)</u> | Guide for the Measurement and Evaluation of Human Exposure to Vibration Transmitted to the Hand  |
| 20) | <u>ANSI S3.35-1985 (R 1990)</u> | Method of Measurement of Performance Characteristics of Hearing Aids under Simulated <u>in situ</u> Working Conditions   |
| 21) | <u>ANSI S3.36-1985 (R 1990)</u> | Specification for a Manikin for Simulated <u>in situ</u> Airborne Acoustic Measurements  |
| 22) | <u>ANSI S3.37-1987 (R 1992)</u> | Preferred Earhook Nozzle Thread for Postauricular Hearing Aids   |
| 23) | <u>ANSI S3.39-1987</u>          | Specifications for Instruments to Measure Aural Acoustic Impedance and Admittance (Aural Acoustic Immittance)  |
| 24) | <u>ANSI S3.40-1989 (R 1995)</u> | Guide for the Measurement and Evaluation of Gloves which are used to reduce Exposure to Vibration Transmitted to the Hand  |
| 25) | <u>ANSI S3.41-1990</u>          | Audible Emergency Evacuation Signal  |
| 26) | <u>ANSI S3.42-1992</u>          | Testing Hearing Aids with a Broad-Band Noise Signal  |
| 27) | <u>ANSI S3.43-1992</u>          | Standard Reference Zero for the Calibration of Pure-Tone Bone-Conduction Audiometers   |

**ASA S3 BIOACOUSTICS  
COMMITTEE CORRESPONDENCE**

**Tom Frank, Ph.D.  
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(Phone: 814/863-2006 FAX: 814/863-3759)**

Date: April 16, 1995  
To:  Avril Brenig  
From: Tom Frank, Chair and Robert Burkard, Vice-Chair  
Re: Report of S3 Chair and Vice-Chair for 1995 ASA Spring Meeting  
Washington, DC

The following is a summary of the work conducted by the S3 Committee on Bioacoustics since the ASA Fall 1994 meeting.

**I. CURRENT STATUS OF EXISTING S3 STANDARDS**

Attachment A shows the current status of all S3.0 standards. In total, there are 14 standards that need immediate work. The following is a summary of the work effort on those standards.

A. The WG chair is in the process of resolving negative votes for the following standard which should be ready for printing in the near future.

**S3.5-1969 (R 1986) METHODS FOR THE CALCULATION OF THE ARTICULATION INDEX (S3/WG79, C. Pavlovic, Chair) [NOTE: Revision called S3.5-199X METHODS FOR CALCULATION OF SPEECH INTELLIGIBILITY INDEX].**

**S3.20-1973 (R 1986) BIOACOUSTICAL TERMINOLOGY (S3/WG73, W. Galloway, Chair).**

B. The WG chairs are in the process of revising the following standards and the revisions should be ready for ballot vote prior to 1996.

**S3.6-1989 (ASA 81) SPECIFICATION FOR AUDIOMETERS (S3/WG35, R. Grason, Chair).**

**S3.22-1987 (ASA 70) SPECIFICATIONS OF HEARING AID CHARACTERISTICS (S3/WG48, D. Preves, Chair) .**

**S3.39-1987 (ASA 71) SPECIFICATIONS FOR INSTRUMENTS TO MEASURE AURAL ACOUSTIC IMPEDANCE AND ADMITTANCE (AURAL ACOUSTIC IMMITTANCE) (S3/WG60, D. Lilly, Chair).**

C. The following standards will be moved to S12 or withdrawn once other standards are completed.

**S3.14-1977 (R 1986) (ASA 21) RATING NOISE WITH RESPECT TO SPEECH INTERFERENCE (S3/WG59)** [Should be moved to S12].

**S3.3-1960 (R 1982, 1990) METHODS FOR MEASUREMENT OF ELECTROACOUSTIC CHARACTERISTICS OF HEARING AIDS (S3/WG48, D. Preves, Chair)** [Will be withdrawn once S3.22 revision is accepted].

**S3.19-1974 (R 1990) (ASA 1) METHOD FOR THE MEASUREMENT OF REAL-EAR PROTECTION OF HEARING PROTECTORS AND PHYSICAL ATTENUATION OF EAR MUFFS (No S3 WG Assigned)** [Will be withdrawn once S12.?? is approved].

D. The following standards have been recommended to be reaffirmed without revision.

**S3.40-1989 (ASA 79) GUIDE FOR THE MEASUREMENT AND EVALUATION OF GLOVES WHICH ARE USED TO REDUCE EXPOSURE TO VIBRATION TRANSMITTED TO THE HAND (S3/WG39, H. von Gierke, Chair)** [Recommended reaffirmation].

**S3.32-1982 (R 1990) (ASA 43) MECHANICAL VIBRATION AND SHOCK AFFECTING MAN-VOCABULARY (S3/WG39, H. von Gierke, Chair)** [Recommended reaffirmation].

E. The WG chairs of the following standards have been informed that the following standards need revision or reaffirmation during 1995. To date no action has been taken; however, I believe that these standards will be recommended for reaffirmation.

**S3.29-1983 (R 1990) (ASA 48) GUIDE TO THE EXPOSURE OF VIBRATION IN BUILDINGS (S3/WG39, H. von Gierke, Chair)**

**S3.35-1985 (R 1990) (ASA 59) METHODS OF MEASUREMENT OF PERFORMANCE CHARACTERISTICS OF HEARING AIDS UNDER SIMULATED IN-SITU WORKING CONDITIONS (S3/WG48, D. Preves, Chair)**

**S3.36-1985 (R 1990) (ASA 58) SPECIFICATION FOR A MANIKIN FOR SIMULATED IN-SITU AIRBORNE ACOUSTIC MEASUREMENTS (S3/WG67, M. Burkhard, Chair)**

**S3.41-1990 (ASA 96) AUDIBLE EMERGENCY EVACUATION SIGNAL (S3/WG63, M. Whitcomb, Chair)**

## II. NEW S3 STANDARDS

The following new S3 standards should be completed and ready for ballot vote in the near future.

**S3.9-199x (ASA xx) MEASUREMENT OF SPEECH LEVELS (S3/WG59, H. Levitt, Chair).**

**S3.44-199x (ASA xx) DETERMINATION OF OCCUPATIONAL NOISE EXPOSURE AND ESTIMATION OF NOISE INDUCED HEARING IMPAIRMENT (S3/WG58, D.L. Johnson, Chair).**

**S3.xx-199x (ASA xx) METHODS OF MEASUREMENT OF REAL EAR  
PERFORMANCE OF HEARING AIDS (S3/WG80, W.A. Cole, Chair).**

**III. NEW S3 WORKING GROUP**

S3/WG84 called OTOACOUSTIC EMISSIONS has been established and will be chaired by Glennis R. Long. The scope of the WG will be to develop a standard for: 1) the classification of instruments capable of recording different classes of OAEs, 2) the specification and classification of various measurement and recording parameters associated with OAEs, and 3) providing definitions relative to all aspects of OAEs.

**IV. THREE YEAR PLAN**

Following the ASA 1992 Fall meeting, a three-year plan concerning S3 activities was developed and implemented. The following is an update concerning implementation of the three-year plan.

**A. Schedule for S3 standards.**

1. The S3 Chair has developed a reference book providing a summary and detailed listing of S3 standards and working group (WG) chairs. The reference book has been updated semi-annually following each ASA S3 meeting or as needed.

2. As a method to speed-up the process of revising/reaffirming S3 standards, the S3 Chair developed a data base mail-merge system for informing WG chairs of the due date and need to revise/reaffirm standards for which they are responsible. Overall, this method has met with limited success since some WG chairs still require follow-up phone calls and even then there are still problems.

**B. Conversion of international standards.**

1. The S3 Chair and Vice-Chair are monitoring ISO and IEC work efforts and providing WG chairs with this information so that ISO and IEC standards can be incorporated into the S3 standards. Presently, the draft revision of S3.6 includes several ISO and IEC standards. However, the problem with including ISO and IEC information in S3 standards is that the ISO and IEC information may not be correct or at odds with data presented in S3 standards.

**C. Consolidation of S3 standards and WGs**

1. The revision of S3.6 is serving as the model for consolidation of S3 standards and WGs. The revision will include all audiometric reference thresholds. As such, following ballot vote, S3.43-1992 (Standard reference zero for the calibration of pure-tone bone-conduction audiometers) and the WGs concerned with High-frequency audiometry and Sound-field audiometry can be merged into the audiometer WG. In the future, S3.6 should also contain the information presently contained in S3.21 (Method of manual pure-tone audiometry).

2. The next revision of S3.7 (Method for coupler calibration of earphones) should include the information contained in S3.25 (Occluded ear simulator), and S3.13 (Mechanical coupler for measurement of bone vibrators).

3. Plans should be made for the development of one standard dealing with all aspects of hearing aids and assistive listening devices. This standard would combine S3.3 (Methods for measurement of electroacoustic characteristics of hearing aids), S3.22 (Specification of hearing aid characteristics), S3.35 (Method of measurement...under simulated in-situ working conditions), S3.37 (Preferred earhook nozzle thread), S3.42 (Testing hearing aids with broad-band noise), assistive listening devices (being developed), and probe-microphone measurements (being developed).

cc: R. Burkard

**ACCREDITED STANDARDS COMMITTEE ON BIOACOUSTICS - S3  
SUMMARY OF STANDARDS AS OF 04/16/95****STANDARDS IN THE PROCESS OF REVISION/REAFFIRMATION:**

**S3.5-1969 (R 1986) METHODS FOR THE CALCULATION OF THE ARTICULATION INDEX (S3/WG79, C. Pavlovic, Chair) [NOTE: Revision called S3.5-199X METHODS FOR CALCULATION OF SPEECH INTELLIGIBILITY INDEX; drafted July 1993, WG chair presently resolving negative vote 1994]**

**S3.6-1989 (ASA 81) SPECIFICATION FOR AUDIOMETERS (S3/WG35, R. Grason, Chair) [NOTE: WG Chair has 3rd draft revision, trying to get ready for ballot vote ASAP]**

**S3.14-1977 (R 1986) (ASA 21) RATING NOISE WITH RESPECT TO SPEECH INTERFERENCE (S3/WG59) [NOTE: Moved to S12]**

**S3.20-1973 (R 1986) BIOACOUSTICAL TERMINOLOGY (S3/WG73, W. Galloway, Chair) [NOTE: WG Chair has completed 5th draft revision, WG chair and S3 Chair recommended ballot vote, A. Brenig notified on 1/4/95, went out for ballot vote due 3/20/95]**

**S3.22-1987 (ASA 70) SPECIFICATIONS OF HEARING AID CHARACTERISTICS (S3/WG48, D. Preves, Chair) [NOTE: WG reports revision in progress and will be completed ASAP]**

**S3.39-1987 (ASA 71) SPECIFICATIONS FOR INSTRUMENTS TO MEASURE AURAL ACOUSTIC IMPEDANCE AND ADMITTANCE (AURAL ACOUSTIC IMMITTANCE) (S3/WG60, D. Lilly, Chair) [NOTE: WG chair working on revision, mid-summer 1995 deadline]**

**S3.40-1989 (ASA 79) GUIDE FOR THE MEASUREMENT AND EVALUATION OF GLOVES WHICH ARE USED TO REDUCE EXPOSURE TO VIBRATION TRANSMITTED TO THE HAND (S3/WG39, H. von Gierke, Chair) [NOTE: WG Chair and S3 Chair recommended reaffirmation, A. Brenig was notified of this decision in 10/20/94 memo]**

**S3.3-1960 (R 1982, 1990) METHODS FOR MEASUREMENT OF ELECTROACOUSTIC CHARACTERISTICS OF HEARING AIDS (S3/WG48, D. Preves, Chair) [NOTE: Will be withdraw once S3.22 is revised]**

**S3.19-1974 (R 1990) (ASA 1) METHOD FOR THE MEASUREMENT OF REAL-EAR PROTECTION OF HEARING PROTECTORS AND PHYSICAL ATTENUATION OF EAR MUFFS (No S3 WG Assigned) [Should be withdrawn once S12.?? is approved]**

**S3.29-1983 (R 1990) (ASA 48) GUIDE TO THE EXPOSURE OF VIBRATION IN BUILDINGS (S3/WG39, H. von Gierke, Chair)**

**S3.32-1982 (R 1990) (ASA 43) MECHANICAL VIBRATION AND SHOCK AFFECTING MAN-VOCABULARY (S3/WG39, H. von Gierke, Chair) [A. Brenig notified on 4/4/95 that document should be reaffirmed without revision]**

**S3.35-1985 (R 1990) (ASA 59) METHODS OF MEASUREMENT OF PERFORMANCE CHARACTERISTICS OF HEARING AIDS UNDER SIMULATED IN-SITU WORKING CONDITIONS (S3/WG48, D. Preves, Chair)**

**S3.36-1985 (R 1990) (ASA 58) SPECIFICATION FOR A MANIKIN FOR SIMULATED IN-SITU AIRBORNE ACOUSTIC MEASUREMENTS (S3/WG67, M. Burkhard, Chair)**

**S3.41-1990 (ASA 96) AUDIBLE EMERGENCY EVACUATION SIGNAL (S3/WG63, M. Whitcomb, Chair)**

**STANDARDS THAT NEED REVISION/REAFFIRMATION IN 1996:**

**S3.1-1991 (ASA 99) MAXIMUM PERMISSIBLE AMBIENT NOISE LEVELS FOR AUDIOMETRIC TEST ROOMS (S3/WG56, T. Frank, Chair)**

**STANDARDS THAT NEED REVISION/REAFFIRMATION IN 1997:**

**S3.4-1980 (R 1992) (ASA 37) PROCEDURE FOR THE COMPUTATION OF LOUDNESS OF NOISE (S3/WG51, J. Goldstein, Chair)**

**S3.21-1978 (R 1992) (ASA 19) METHOD OF MANUAL PURE-TONE AUDIOMETRY (S3/WG35, R. Grason, Chair)**

**S3.34-1986 (R 1992) (ASA 67) GUIDE FOR THE MEASUREMENT AND EVALUATION OF HUMAN EXPOSURE TO VIBRATION TRANSMITTED TO THE HAND (S3/WG39, H. von Gierke, Chair)**

**S3.37-1987 (R 1992) (ASA 69) PREFERRED EARHOOK NOZZLE THREAD FOR POSTAURICULAR HEARING AIDS (S3/WG48, D. Preves, Chair)**

**S3.42-1992 TESTING HEARING AIDS WITH A BROAD-BAND NOISE SIGNAL (S3/WG48, D. Preves, Chair)**

**S3.43-1992 STANDARD REFERENCE ZERO FOR THE CALIBRATION OF PURE-TONE BONE-CONDUCTION AUDIOMETERS (S3/WG43, T. Frank, Chair)**

**STANDARDS THAT NEED REVISION/REAFFIRMATION IN 1998:**

**S3.13-1987 (R 1993) (ASA 74) MECHANICAL COUPLER FOR MEASUREMENT OF BONE VIBRATORS (S3/WG43, T. Frank, Chair)**

**S3.18-1979 (R 1993) (ASA 38) GUIDE FOR THE EVALUATION OF HUMAN EXPOSURE TO WHOLE-BODY VIBRATION (S3/WG39, H. von Gierke, Chair)**

**STANDARDS THAT NEED REVISION/REAFFIRMATION IN 1999:**

**S3.2-1989 (R 1994) (ASA 85) METHOD FOR MEASURING THE INTELLIGIBILITY OF SPEECH OVER COMMUNICATION SYSTEMS (S3/WG36, R. Schlauch, Chair)**

**S3.25-1989 (R 1994) (ASA 80) OCCLUDED EAR SIMULATOR (S3/WG37, B. Kruger, Chair)**

**STANDARDS THAT NEED REVISION/REAFFIRMATION IN 2000:**

**S3.7-1995 (ASA 112) METHOD FOR COUPLER CALIBRATION OF EARPHONES (S3/WG37, B. Kruger, Chair)**

**STANDARDS IN PROGRESS:**

**S3.9-199X MEASUREMENT OF SPEECH LEVELS (S3/WG59, H. Levitt, Chair; drafted May 1993; out for ballot (LB/S3.9/377) on 01/21/94, WG chair indicated that revision is in progress).**

**S3.44-199X DETERMINATION OF OCCUPATIONAL NOISE EXPOSURE AND ESTIMATION OF NOISE INDUCED HEARING IMPAIRMENT (S3/WG58, D.L. Johnson, Chair; drafted October, 1992, working on revisions, counterpart to ISO 1999-1990)**

**ISO WORK EFFORTS AND S3.0 ASSIGNMENTS**

**ISO TC43/SC 1 REFERENCE HEARING THRESHOLD LEVELS FOR ACOUSTIC TEST SIGNALS OF SHORT DURATION.** [US Member/Documents L. Wilber, S3/WG72-Measurement of Auditory Evoked Potentials, R. Burkard, Chair]

**ISO TC43/SC 1 REFERENCE THRESHOLD LEVELS FOR PURE TONES IN THE FREQUENCY RANGE 8 - 16 kHz.** [US Member/Documents L. Wilber, J. Fletcher, S3/WG77-High Frequency Audiometry, J. Fletcher, Chair]

**ISO TC43/SC 1 ACOUSTICS-AUDIOMETRIC TEST METHODS. PART 3: SPEECH AUDIOMETRY.** [US Member/Documents L. Wilber, S3/WG35-Audiometers, R. Grason, Chair]

**ISO TC43/SC 1 NOISE EMISSIONS FROM SOUND SOURCES PLACED AT THE EARS. PART 1: NOISE IMMISSIONS ESPECIALLY BY OPEN HEADPHONES AND PUSH-IN EARPHONES. PART 2: NOISE IMMISSIONS ESPECIALLY BY HALF-OPEN AND CLOSED HEADPHONES EXCEPT PUSH-IN EARPHONES.** [US Member/Documents R. Campbell, S3/WG37-Coupler Calibration of Earphones, B. Kruger, Chair]

**ISO TC43/SC 1 ACOUSTICS-EQUAL-LOUDNESS CONTOURS FOR OTOLOGICALLY NORMAL LISTENERS. PART 1: REFERENCE THRESHOLD OF HEARING UNDER FREE-FIELD AND DIFFUSE-FIELD LISTENING CONDITIONS.** [US Member/Documents L. Wilber, S3/WG78-Thresholds, W. Yost, Chair]

**IEC WORK EFFORTS AND S3.0 ASSIGNMENTS**

**IEC TC 29 (Secretariat) 227 - First CD: COUPLER CONFIGURATIONS FOR THE CALIBRATION OF AUDIOMETRIC EARPHONES IN THE EXTENDED HIGH FREQUENCY RANGE.** [Coordinator: B. Kruger, Chair, S3/WG37-Coupler Calibration of Earphones]

**IEC TC 29 (Central Office) 214 - Draft IEC 645-3: AUDIOMETERS-PART 3: AUDITORY TEST SIGNALS OF SHORT DURATION FOR AUDIOMETRIC AND NEURO-OTOLOGICAL PURPOSES.** [Coordinator: R. Grason, Chair, S3/WG35-Audiometers]

**IEC TC (Central Office) 215 - Draft IEC 645-4: AUDIOMETERS-PART 4: EQUIPMENT FOR EXTENDED HIGH-FREQUENCY AUDIOMETRY.** [Coordinator: R. Grason, Chair, S3/WG35-Audiometers]

**IEC TC 29 (Secretariat) 276 - First CD FOR AN AMENDMENT 2: MEASUREMENT USING BROAD INPUT SIGNALS" TO IEC 118-2:1983 HEARING AIDS PART 2: HEARING AIDS WITH AUTOMATIC GAIN CONTROL CIRCUITS.** [Coordinator: D. Preves, Chair, S3/WG48-Hearing Aids]



**ANSI COMMITTEE CORRESPONDENCE**  
**ASA S3/WG36**  
**Speech Intelligibility**

**Lynne Marshall, Ph.D.**  
**Naval Submarine Medical Research Laboratory**  
*Box 900, Submarine Base New London*  
*Groton, Ct. 06349-5900*  
*(203) 449-2550*

Date: November 22, 1994  
From: Lynne Marshall, Chair ASA S3/WG36  
To: ASA S3/WG36 Committee Members  
Subject: Committee Activities

**ANSI S3.2-1989 [Revision of S3.2-1960 R 1982]] (ASA 85) METHOD FOR MEASURING THE INTELLIBILITY OF SPEECH OVER COMMUNICATION SYSTEMS** was sent out for letter ballot re: reaffirmation on August 15, 1994. Julie Royster, former chair S3. Mones Hawley, who was chair of the sub-group (now disbanded) that wrote the standard, and I recommended reaffirmation.

Subgroup 2 (the last remaining WG36 subgroup), chaired by Jim Kreul, has been disbanded. At our committee meeting last June in Boston, we discussed the products that this subgroup was working on. One was a document on standardized audiological reporting of speech-recognition tests. We decided that ASHA or AAA would be more appropriate groups to make recommendations of this sort and that this document should be transferred to them. If any of you are associated with any relevant groups/committees, let me know, and I'll send the report along for your presentation. Otherwise, I'll find the most appropriate group given their current activities. I would appreciate any suggestions. The second document was a preliminary start on a technical report for recommended psychometric standardization procedures for recorded tests and/or reporting requirements on what standardization procedures have or have not been done for a particular test. This project was seen as extremely difficult and one in which a great deal of work would ultimately result in a lack of consensus. We recommended that Subgroup 2 be disbanded because there is no apparent demand for ANSI standardization of speech-audiometry procedures, and in all probability such work would be ignored if produced. Tom Frank, S3 Chair, concurred, and this group has been disbanded. At the present time, S3/WG36 has no subgroups.

For some time we have been aware of the desirability of a standard or technical report concerning guidelines for digital recording of materials for speech audiometry, and, in fact, new committee members were added for that purpose. At the June meeting, we reaffirmed that guidelines for making digital recordings of speech-recognition materials were

desirable (in order that recordings be fully compatible with audiological equipment) and also agreed on the usefulness of standardized reporting requirements (of pertinent parameters) for these recordings. However, it is wasteful for people to conscientiously contribute time and effort to a document that ultimately would not be used very much. Tom Frank requested that we proceed only if there is a "strong need" in the field for such a technical report or standard. He requested that I survey some suggested individuals, which I have done. I also welcome the opinions of the WG36 members. Please let me know your opinion by December 8 about where this document would fall along the "needs continuum;" i.e.,

- (a) no need for this document;
- (b) would be nice to have, important to a few people, useful for other professionals (e.g., recording engineers making audiological recordings), but not important to many audiologists -- so there is not a *strong* need for this document;
- (c) *strong* need for this document.

A final question was -- if WG36 is not producing standards or technical reports, should it be disbanded? The answer is that WG36 will be kept intact if for no other reason than to comment on ISO and IEC documents.

cc: T. Frank, Chair ASA S3.0

filename: digneed.wp

**ANSI COMMITTEE CORRESPONDENCE**  
**ASA S3/WG36**  
**Speech Intelligibility**

**Lynne Marshall, Ph.D.**  
**Naval Submarine Medical Research Laboratory**  
*Box 900, Submarine Base New London*  
*Groton, Ct. 06349-5900*  
*(203) 449-2550*

**Date:** December 16, 1994  
**From:** Lynne Marshall, Chair ASA S3/WG36  
**To:** Tom Frank, Chair ASA S3.0 Bioacoustics  
**Subject:** Committee Activities

I polled the experts you suggested as well as the Working Group, and the general consensus is that there is not a strong need for a standard or technical report concerning guidelines for digital recording of materials for speech audiometry. Most members agreed that this document would be nice to have, important to a few people, useful for some other professionals, but not important to many audiologists. The one member who thought there was a strong need pointed out that more and more multimedia desktop speech audiometry programs are becoming available, some of which have only 8-bit sampling, do not worry much about truncation, etc. Another member pointed out, however, that the most effective approach to reach audiologists would be a tutorial or review article in AJA, which would best be written by someone with expertise, not a committee. Therefore, I recommend that S3/WG36 not take on this task, but that the Working Group remain intact to comment on ISO and IEC documents.

cc: R. Burkard, Vice-Chair ASA S3.0; A. Brenig, Stds Sec; ASA S3/WG36 Committee Members

COMMITTEE CORRESPONDENCE

7 Oct 1993

Julia Royster, Chair S3,

S3/WG71 did not meet at the Denver meeting of the Acoustical Society. Data continues to be collected supporting the development of the draft standard for artificial mouths. The working group is developing definitions and basic procedures during this time of data collection and data gathering. The working group plans to meet at the Boston meeting of the Acoustical Society to review the definitions, basic procedures, data which has been collected. A draft of the standard should be completed no later than Nov 95.

Sincerely,

A handwritten signature in cursive script, reading "Richard L. McKinley".

Richard L. McKinley  
Chair, [REDACTED] S3/WG71



# ACOUSTICAL SOCIETY OF AMERICA

OFFICE OF THE  
STANDARDS SECRETARIAT

120 WALL STREET, 32nd FLOOR, NEW YORK, NEW YORK 10005-3993

AVRIL BRENIG, Dr. P. H.  
STANDARDS MANAGER

Telephone (212) 248-0373  
Telefax (212) 248-0148

6 April 1995

TO: T. Frank, Chair S3

RE: Letter Ballot S3.20/395 sent to Accredited Standards Committee S3 on 31 January 1995 and closed on 6 April 1995

SUBJECT: Approval of Proposed ANSI Standard S3.20-199X, Draft dated December 1994

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Enclosed please find tally of the above letter ballot, showing results as follows:

## Classification of Members

AFFIRMATIVE VOTES	14	P - PRODUCER	5
NEGATIVE VOTES	2	C - CONSUMER	6
ABSTENTIONS	3	G - GOVERNMENT	5
NOT RETURNED	<u>2</u>	GI - GENERAL INTEREST	<u>5</u>
TOTAL	21	TOTAL	21

**AFFIRMATIVE VOTES:**

Bennett, J.L.  
Brownson, P.J.  
  
Campbell, R.H.  
Danielson, R.  
Frank, T.  
Garinther, G.  
Marshall, L. (*Alt. for Page*)  
Mayer, M.S. (*Alt. for Sachs*)  
Mercola, P.  
Michael, L.A. (*Alt. for Gates*)  
Naunton, R.F.  
Nixon, C.W.  
Rogin, C. (*Alt. for Armstrong*)  
Schonthal, E.

Power Tool Institute  
American College of Occupational and  
Environmental Medicine  
Audio Engineering Society  
U.S. Army Audiology & Speech Center  
Acoustical Society of America  
USHEL  
Navy Environmental Health Center  
AT&T  
International Hearing Society  
A A O L  
American Otological Society  
USAF  
Hearing Industries Assoc.  
Bruel & Kjaer Instruments

**NEGATIVE VOTES:**

Royster, J.D.  
Royster, L.H.

ASHA  
American Industrial Hygiene Assoc.

**ABSTENTIONS:**

Addington, J.H.  
Birkner, J.  
Zagzebski, J.

Compressed Air & Gas Inst.  
Industrial Safety Equipment Assoc.  
AIUM

**NOT RETURNED:**

Burnett, E.D.  
Patterson, J.H.

NIST  
USAARL

**LATE RESPONSES:**

None

**INDIVIDUAL EXPERTS:**

- 1) Individual Experts stating they will participate in the review of this document:

Johnson, D.L.  
Kryter, K.D.  
von Gierke, H.E.  
Wasserman, D.E.  
Yost, W.A.

- 2) Individual Experts stating they will not participate in the review of this document:

None.

- 3) Comments and/or recommendations were received from Individual Experts, as follows:

von Gierke, H.E. (*Affirmative comments*)  
Yost, W.A. (*Negative comments*)

Avril Brenig  
Standards Manager

cc: Vice Chair, Standards Committee  
Chair and Vice Chair, ASACOS



# ACOUSTICAL SOCIETY OF AMERICA

OFFICE OF THE  
STANDARDS SECRETARIAT

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STANDARDS MANAGER

Telephone (212) 248-0373  
Telefax (212) 248-0146

ATTACHMENT G-4  
S3/400

LB/S3.20/395  
6 February 1995

Return to: Letter Ballot Department  
Due Date: 20 March 1995

## LETTER BALLOT ACCREDITED STANDARDS COMMITTEE ON BIOACOUSTICS, S3

Topic:

APPROVAL OF PROPOSED ANSI STANDARD S3.20-199X,  
PSYCHOACOUSTICAL TERMINOLOGY DRAFT DATED  
DECEMBER 1994 (A PROPOSED REVISION OF ANSI S3.20-1973)

Authorized by:

T. Frank, Chair

Circulated

A. Brenig, ASA Standards Manager

Reference Document(s):

**ATTACHMENT A** Proposed ANSI Standard, ANSI S3.20-199X, draft dated  
DOC/LB/S3.20/395 December 1994

**ATTACHMENT B** Letter from T. Frank, Chair S3, to A. Brenig, dated  
4 January 1995

### Background Information

Working Group S3/WG73 Bioacoustical Terminology, chaired by W.J. Galloway, assisted Accredited Standards Committee S3, Bioacoustics, in the preparation of this draft of the proposed Standard, ANSI S3.20-199X. The membership of S3/WG73 is listed in the subject document.

The Chair of S3 and the chair of working group S3/WG73, W.J. Galloway, both recommend approval of the December 1994 draft of ANSI S3.20-199X, as a proposed American National Standard.



## **COMMITTEE CORRESPONDENCE**

*41 Byron Ave., Dorchester, ON, CANADA, N0L 1G0, Phone 519-268-3313, FAX 519-268-3256*

### **ASA STANDARDS COMMITTEE S3/WG80**

**Jan. 8, 1995**

**Dr. Tom Frank, Chair S3, Bioacoustics  
5A Moore Bldg., Dept. of Communicative Disorders  
Penn State University  
University Park PA 16802**

**Dear Tom:**

**This WG last met Dec. 2, 1994 in Austin TX.**

**The chairman reported on terminology changes discussed at the meeting of the joint IEC/ISO WG1 on April 30, 1994 and it was agreed that these changes were acceptable. It was reported that the meeting of the joint IEC/ISO WG1 did not take place as planned on Oct. 8 and it has been postponed indefinitely.**

**The chairman presented a revised version of the working document which included changes agreed to with the IEC/ISO joint working group, incorporated all member comments to date and introduced changes to reduce the number of Appendices. The revised document was discussed in detail and considerable progress was made toward a draft standard. The chairman undertook to incorporate suggested changes, add suggested tolerances and drawings, and circulate a revised document to all members of the working group prior to the next meeting.**

**The next meeting of this working group is scheduled for March 29, 1995 in Dallas TX.**

**An updated membership list is included for your records.**

**Sincerely,**

**W.A. Cole  
Chair**

**cc A. Brenig, ASA Standards Secretariat**

**ASA S3 BIOACOUSTICS  
COMMITTEE CORRESPONDENCE**

**Tom Frank, Ph.D.  
5-A Moore Building  
Department of Communication Disorders  
Penn State University  
University Park, PA 16802  
(Phone: 814/863-2006 FAX: 814/865-3759 E-mail: taf1@psuvm.psu.edu)**

**Date:** March 1, 1995

**From:** Tom Frank, Chair S3.0

**To:** Glenis R. Long, Purdue University, Department of Audiology and Speech Science, West Lafayette, IN 47907 (317/494-3815; FAX 317-494-0771; E-mail long@physics.purdue.edu)

**Re:** Approval of S3/Working Group (WG) 84 Otoacoustic Emissions

I am very pleased to announce that S3/WG84 titled **OTOACOUSTIC EMISSIONS** has been approved. As chair of the WG you are charged to develop a draft standard that takes into account : 1) the classification of instruments capable of recording different classes of OAEs, 2) the specification and classification of various measurement and recording parameters associated with OAEs, and 3) providing definitions relative to all aspects of OAEs.

First, I would suggest that you contact Bob Burkard (617/353-7480) concerning a model draft standard since Bob is doing the same thing except for auditory evoked response measurements. Second, I would suggest that you establish a small working group that contains experts from industry researchers, and users of OAE equipment. The working group members do not have to be members of ASA. However, they should be reliable and be able to devote sometime to the development of this standard.

I hope to meet you either at the AAA meeting in Dallas or the ASA meeting in Washington, DC. If you have any questions please contact me. Thanks again.

cc: Robert Burkard, Boston University, Dept. CMDIS, 635 Commonwealth Ave., Boston, MA 02215;  
Avril Brenig, Standards Secretariat, ASA, 120 Wall Street, 32nd Floor, New York, NY 10005-3993

OFFICE OF THE  
STANDARDS SECRETARIAT

120 WALL STREET, 32nd FLOOR, NEW YORK, NEW YORK 10005-3993

AVRIL BRENIG, Dr. P. H.  
STANDARDS MANAGERTelephone (212) 248-0373  
Telefax (212) 248-0146**IEC/TC 29 ELECTROACOUSTICS****U.S. TECHNICAL ADVISOR: V. NEDZELNITSKY**DOCUMENTS PROCESSED BY THE ASA STANDARDS SECRETARIAT  
FROM SEPTEMBER 1994 TO APRIL 1995

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COORDINATOR	TAG	DRAFT INTERNATIONAL STANDARDS (DIS)
A.H. Marsh	S1	<u>Second Draft IEC 1260</u> - Electroacoustics - Octave-Band and Fractional-Octave-Band Filters

announced to S1 (S1/412) on 6 March 1995.

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COORDINATOR	TAG	COMMITTEE DRAFTS (CDs)
D.A. Preves	S3	<u>282 Second CD</u> : Dimensions of Electrical connector system for hearing aids

announced to S3 (S3/388) on 23 September 1994. The U.S. position, NEGATIVE WITH COMMENTS, was submitted to USNC by the U.S. Technical Advisor on 20 December 1994, and from USNC to IEC on 27 December 1994.

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J. Agnew	S3	<u>293 First IEC/CD 1670</u> - Hearing Instruments - Digital Interface
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announced to S3 (S3/396) on 24 February 1995. The U.S. position, NEGATIVE WITH COMMENTS, was submitted to USNC by the U.S. Technical Advisor on 20 April 1995, and from USNC to IEC/TC 29 Secretary on 27 April 1995.

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V. Nedzelnitsky	S1	<u>First IEC/CD 296</u> - Electroacoustics - Sound Calibrators (revision of IEC 942-1988, including test procedures)
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announced to S1 (S1/413) on 6 March 1995.

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COORDINATOR      TAG      COMMITTEE DRAFTS

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DOCUMENTS CIRCULATED AD-HOC

(Insufficient time for full Committee circulation)

D.A. Preves      S3      IEC/297 - Inquiry on a work plan for the revision of the  
IEC 118 series on Hearing Aids.

The U.S. Position, AFFIRMATIVE WITH COMMENTS, was submitted to USNC by the U.S.  
Technical Advisor on 10 May 1995, and from USNC to IEC/TC 29 Secretary on 11 May 1995.

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C.T. Zegers      02C/96/Q - ???

The U.S. Position, AFFIRMATIVE, was submitted to IEC TC Group C Manager on 19 June  
1995.



**NIST**

**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Institute of Standards and Technology**  
Gaithersburg, Maryland 20899

COMMITTEE CORRESPONDENCE

Building 233 (Sound), Room A147

June 1, 1995

REPORT TO: ASACOS, TAG for TC 29 Electroacoustics, and other  
directly and materially interested parties

From: Victor Nedzelnitsky, Sc.D. *VN*  
Technical Adviser to USNC/IEC  
for TC 29 Electroacoustics

SUBJECT: Activities concerning IEC/TC 29

1. Published copies of the following IEC International Standards have been received by USNC/IEC. These Standards can be purchased at the indicated prices (which may have changed due to currency fluctuations, etc., since this information was furnished by ANSI), plus shipping and handling, from USNC/IEC, 11 West 42nd Street, New York, NY 10036, telephone 212-642-4936, FAX (for sales only) 212-302-1286.

IEC 645-3: 1994 Audiometers, Part 3: Auditory test signals of short duration for audiometric and neuro-otological purposes, First edition, \$43.00

IEC 645-4: 1994 Audiometers, Part 4: Equipment for extended high-frequency audiometry, First edition, \$47.00

IEC 118-1: 1995 Hearing aids, Part 1: Hearing aids with induction pick-up coil input, Third edition, \$40.00

IEC 1265-1995 Electroacoustics - Instruments for measurement of aircraft noise - Performance requirements for systems to measure one-third-octave band sound pressure levels in noise certification of transport-category aeroplanes, First edition, \$61.00

2. Documents received and/or processed for ballot or comment are announced via the ASA Standards Secretariat and are listed separately in the ASACOS/S1/S3 Minutes. Consequently, a list is not repeated in this report.

3. Meetings of TC 29, its WGs, and of OIML (Organisation Internationale de Metrologie Legale, known in English as

International Organization for Legal Metrology) TC 13, Measuring instruments for acoustics and vibration, were held in London, U.K. in November, 1994. Detailed reports of those meetings are contained in my "Summary Foreign Trip Report" dated March 14, 1995, with numerous attached documents. Copies are available on request from the ASA Standards Secretariat or from me. Some of the most notable activities concern electromagnetic compatibility (especially susceptibility) of acoustical instruments.

4. The next meeting of IEC TC 29 Electroacoustics and its WGs will be held in Pretoria, South Africa, February 19-23, 1996. As soon as registration material for delegates to the TC 29 meetings is received via USNC/IEC, it will be distributed for return to the Secretary, USNC/IEC. Expert members of WGs most probably will hear directly from their WG Conveners about their WG meetings before the delegate registration material is received.

5. A meeting of OIML TC 13, Measuring instruments for acoustics and vibration, will probably be held in London, U.K. or Frankfurt, Germany just before, or just after, the TC 29 meetings. As soon as more particulars are resolved, I will work with Dr. Sam Chappell of NIST, the U.S. representative on this committee, to contact U.S. experts who, with Dr. Chappell's authorization, may be able to attend and to contribute to this meeting in areas closely related to their responsibilities for TC 29 and its WGs.

cc:

A. V. Brenig  
S. E. Chappell  
D. G. Eitzen  
R. C. Geiseman  
C. T. Zegers

# The University of Vermont

DEPARTMENT OF PHYSICS  
COOK PHYSICAL SCIENCE BUILDING  
BURLINGTON, VERMONT 05405-0125  
(802) 656-2644  
FAX (802) 656-0817



27 February 1995

Dr. Avril Brenig  
Standards Manager,  
Acoustical Society of America  
120 Wall Street, 32nd Floor  
New York NY 10005-3993

Subject: IEC87

Dear Dr. Brenig:

Since my last report (6 September 1994) I have reviewed five documents.

1. 87(Sec.)65 New Work Item. Ultrasonics - Focusing transducers - Measurement and characterization of transmitting properties.

My vote was for approval, with the suggestion that more consideration be given to computational methods.

2. 87/62D (Sec) 66/150 Ultrasonics - Physiotherapy systems

My vote was for conditional approval, the condition being that informative material be added which would make the standard more useful. This material would inform users on means for estimating the temperature elevation which would be produced during applications, since the benefits are believed associated with heating. In future standards development, means for such estimations should be given much more emphasis.

3. 87/67/NWP. New Work Proposal. Ultrasonics - Pressure pulse lithotriptors - Characteristics of fields.

My vote was for approval of the project.

4. 87/68/NWP New Work Proposal. Surgical systems - Measurement and declaration of the output characteristics.

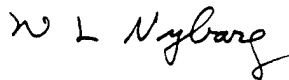
My vote was for approval of efforts toward producing a technical report. More must be learned about the principles of operation of these devices before good standards can be formulated.

5. 87 (C.O.) 34. Draft International Standard. Hand-held probe doppler foetal heart beat detectors - Performance requirements and methods of measurement and reporting

My vote: Approval

On Feb.22, I attended a meeting of the US TAG for IEC87, held at Drexel University in Philadelphia. The TAG discussed positions to be taken up at the forthcoming meeting of IEC87 in San Francisco, March 20-24, 1995 (in which I do not intend to participate). Among the many standards in preparation by IEC87, those receiving most attention deal with safety-related acoustical specifications of equipment for medical diagnostic ultrasound.

Sincerely yours,

A handwritten signature in cursive script, reading "W L Nyborg".

Wesley L. Nyborg  
ASA Representative to US TAG for IEC87



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AVRIL BRENIG, Dr. P. H.  
STANDARDS MANAGERTelephone (212) 248-0373  
Telefax (212) 248-0146**IEC/TC 43 ACOUSTICS and ISO/TC 43/SC1 NOISE**U.S. TAG Chair: P.D. Schomer  
U.S. TAG Vice Chair: H.E. von GierkeDOCUMENTS PROCESSED BY THE ASA STANDARDS SECRETARIAT  
FROM SEPTEMBER 1994 TO APRIL 1995

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The following documents were received for VOTE and/or COMMENT by the U.S. Member Body:

<b>COORDINATOR</b>	<b>TAG</b>	<b>DRAFT INTERNATIONAL STANDARDS (DIS)</b>
R.M. Guernsey	S12	<u>ISO/DIS 11821</u> - Acoustics - Determination of the in situ sound attenuation of a removable screen

announced to S12 (S12/308) on 15 September 1994. The U.S. position ABSTENTION WITH COMMENTS, was submitted to ANSI on 17 February 1995, and from ANSI to ISO on 23 February 1995.

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A.H. Marsh	S1	<u>ISO/DIS 266</u> - Acoustics - Preferred frequencies [Revision of the First edition (ISO 266:1975)]
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announced to S1 (S1/406) on 26 September 1994. The U.S. position, NEGATIVE WITH TECHNICAL COMMENTS, was submitted to ANSI on 1 February 1995, and from ANSI to ISO on 9 February 1995.

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W.A. Flint	S12	<u>ISO/DIS 6395:1988/DAM 1</u> - Acoustics - Measurement of exterior noise emitted by earth-moving machinery - Dynamic test
------------	-----	---

announced to S12 (S12/310) on 14 November 1994. The U.S. position, AFFIRMATIVE WITH EDITORIAL COMMENTS, was submitted to ANSI on 1 February 1995, and from ANSI to ISO on 16 February 1995.

COORDINATOR	TAG	DRAFT INTERNATIONAL STANDARDS (DIS)
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R.J. Peppin	S12	<u>ISO/DIS 3746.2</u> - Acoustics - Determination of sound power levels of noise sources using sound pressure - survey method using an enveloping measurement surface over a reflecting plane
-------------	-----	---

announced to S12 (S12/316) on 24 January 1995. The U.S. position, NEGATIVE WITH COMMENTS, was submitted to ANSI on 28 February 1995, and from ANSI to ISO on 2 March 1995.

R. Lotz	S12	<u>ISO/DIS 14605</u> - Acoustics - Measurement of Airborne Noise Emitted by Computer and Business Equipment (Proposed rev. of ISO 7779-1988)
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announced to S12 (S12/315) on 11 January 1995. The U.S. position, CONDITIONALLY AFFIRMATIVE WITH COMMENTS, was sent to ANSI on 18 April 1995, and from ANSI to ISO on 28 April 1995.

D.L. Johnson	S12	<u>ISO/DIS 9612.2</u> - Acoustics - Guidelines for the Measurement and Assessment of exposure to noise in a working environment
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announced to S12 (S12/319) on 24 January 1995. The U.S. position, AFFIRMATIVE WITH COMMENTS, was sent to ANSI on 28 February 1995, and from ANSI to ISO on 2 March 1995.

R.M. Guernsey	S12	<u>ISO/DIS 11691.2</u> - Acoustics - Measurement of Insertion Loss of Ducted Silencers without Flow - Laboratory Survey Method
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announced to S12 (S12/321) on 24 February 1995. The U.S. position, NEGATIVE WITH COMMENTS, was sent to ANSI on 28 March 1995, and from ANSI to ISO on 5 April 1995.

W.H. Flint	S12	<u>ISO/DIS 6393</u> - Acoustics - Measurement of exterior noise emitted by earth-moving machinery - Stationary test conditions
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announced to S12 (S12/322) on 20 April 1995.

COORDINATOR	TAG	DRAFT INTERNATIONAL STANDARDS (DIS)
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W.H. Flint	S12	<u>ISO/DIS 6394</u> - Acoustics - Measurement at the operator's position noise emitted by earth-moving machinery - Stationary test conditions
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announced to S12 (S12/322) on 20 April 1995.

R.M. Guernsey	S12	<u>ISO/DIS 5135</u> - Acoustics - Determination of sound power levels of noise from air-terminal devices, air-terminal units, dampers and valves by measurement in a reverberation room
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announced to S12 (S12/324) on 20 April 1995.

COORDINATOR	TAG	COMMITTEE DRAFTS (CD)
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C.W. Nixon	S12	<u>Second ISO/CD 4869-4</u> - Acoustics - Hearing protectors - <u>Part 4</u> : Methods for the measurement of level-dependent earmuffs
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announced to S12 (S12/318) on 24 January 1995. The U.S. position, NEGATIVE WITH COMMENTS, was submitted to ANSI on 28 February 1995, and from ANSI to ISO on 10 March 1995.

R.J. Peppin	S12	<u>ISO/CD 3747</u> - Acoustics - Determination of sound power levels of noise sources using sound pressure - Engineering comparison method for use in an essentially reverberant field in situ (Revision of ISO 3747:1987)
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announced to S12 (S12/317) on 24 January 1995. The U.S. position, AFFIRMATIVE WITH COMMENTS, was submitted to ANSI on 28 February 1995, and from ANSI to ISO on 10 March 1995.

COORDINATOR	TAG	DRAFT INTERNATIONAL STANDARDS (DIS)
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**DOCUMENTS CIRCULATED AD HOC**

(Insufficient time for full Committee circulation)

R.M. Guernsey	S12	<u>ISO/DIS 11546-1.2 and ISO/DIS 11546-2.2</u> Acoustics - Determination of sound insulation performances of enclosures <u>Parts 1 and 2</u>
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S12/Ad Hoc 9 sent to R.M. Guernsey on 2 May 1995.

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ANSI/tag\_95a4b.rpt

## REPORT ON TC 43 AND TC 43/SC 1 ACTIVITIES February 24, 1995

TC 43/SC 1 activities are continuing at a furious pace and we expect to handle at least 50 work items this year--an average of one per week. We are managing to announce and get comments in on most of these documents. Because of short times provided by ISO, some documents are handled on an *ad hoc* basis.

The next meeting of TC 43 and TC 43/SC 1 will be in South Africa during the last two weeks of February, 1996. There is, as yet, no schedule for this meeting.

The following ISO documents are open for reaffirmation. I welcome the comments of all. If there are no comment on a document, then I plan to reaffirm it.

ISO 16:1975	1980	Standard tuning frequency(standard musical pitch)
ISO 532:1975	1980	Method for calculating loudness level
ISO 2922:1975	1980	Measurement of noise emitted by vessels on inland water-ways and harbours
ISO 1999:1990		Determination of occupational noise exposure and estimation of noise-induced hearing impairment.
ISO 4869-1:1990		Hearing protectors-Part 1: Subjective method for the measurement of sound attenuation
ISO 5136:1990		Determination of sound power radiated into a duct by fans-In-duct method
ISO 5136/COR1:1993		Technical Corrigendum 1
ISO 6393:1985		Measurement of airborne noise emitted by earth-moving machinery--Method for determining compliance with limits for exterior noise--Stationary test condition
ISO 7574-1:1985		Statistical methods for determining and verifying stated noise emission values of machinery and equipment--Part 1: General considerations and definitions
ISO 7574-2:1985		Statistical methods for determining and verifying stated noise emission value of machinery and equipment--Part 2: Methods for stated values for individual machines

- |                 |  |
|-----------------|--|
| ISO 7574-3:1985 | Statistical methods for determining and verifying stated noise emission value of machinery and equipment--Part 3: Simple (transition) method for stated values for batches of machines |
| ISO 7574-4:1985 | Statistical methods for determining and verifying stated noise emission value of machinery and equipment--Part 4: methods for stated values for batches of machines                    |
| ISO 9645:1990   | Measurement of noise emitted by two-wheeled mopeds in motion--Engineering method   |



**ISO/TC 108 MECHANICAL VIBRATION AND SHOCK**  
**(and SUBCOMMITTEES SC1, SC2, SC3, SC4, SC5 and SC6)**  
**(U.S. Technical Advisor, D. Muster for ISO/TC 108)**

Documents processed by the ASA Standards Secretariat from September 1994 to April 1995

The following documents were received for VOTE AND COMMENT by the U.S. Member Body:

**Technical Coordinator      TAG      DRAFT INTERNATIONAL STANDARDS (DIS)**

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M. Weiss	S3	<u>ISO/DIS 10227-1</u> Human/human surrogate impact (single shock) testing and evaluation - <u>Part 1</u> : Guidance on technical aspects
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was announced to S3 (S3/390) on 17 October 1994. The U.S. Position, AFFIRMATIVE WITH EDITORIAL COMMENTS, was submitted to ANSI on 6 January 1995, and from ANSI to ISO on 11 January 1995.

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A.F. Kilcullen	S2	<u>ISO/DIS 10055</u> - Mechanical vibration - Vibration testing requirements for shipboard equipment and machinery components
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was announced to S2 (S2/271) on 18 October 1994. The U.S. Position, AFFIRMATIVE WITH TECHNICAL AND EDITORIAL COMMENTS, was submitted to ANSI on 16 December 1994, and from ANSI to ISO on 19 December 1994.

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D.E. Siskind	S2	<u>ISO/DIS 8569</u> - Mechanical vibration and shock - Measurement and evaluation of shock and vibration effects on sensitive equipment in buildings
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was announced to S2 (S2/270) on 18 October 1994. The U.S. Position, AFFIRMATIVE WITH TECHNICAL COMMENTS, was submitted to A.F. Kilcullen for approval on 1 February 1995, and from ANSI to ISO on 24 February 1995.

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Technical Coordinator      TAG      COMMITTEE DRAFTS (CD)

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D.E. Siskind                      S2              Draft Amendment ISO 4866-1990/DAM2 - Mechanical Vibration and Shock - Vibration of buildings - Guidelines for the measurement of vibrations and evaluation of their effects on buildings

was announced to S2 (S2/275) on 24 February 1995. The U.S. Position, ABSTENSION WITH COMMENTS, was submitted to ANSI on 2 May 1995, and from ANSI to ISO on 8 May 1995.

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M. Weiss                              S3              ISO/CD 13090-1 - Mechanical Vibration and Shock - Guide to the safety of tests and experiments in which people are exposed to vibration and shock - Part 1: Mechanical vibration and repeated shock

announced to S3 (S3/397) on 9 March 1995. The U.S. Position, AFFIRMATIVE WITH NO COMMENTS, was submitted to ANSI on 15 May 1995.

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B. Douglas                              S2              ISO/DIS 5347-22 - Methods for the Calibration of Vibration and Shock Pick-Ups Part 22

was announced to S2 (S2/277) on 20 April 1995.

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**DOCUMENTS CIRCULATED AD HOC**

None to date.

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# ACOUSTICAL · SOCIETY · OF · AMERICA

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120 WALL STREET, 32nd FLOOR, NEW YORK, NEW YORK 10005-3993

AVRIL BRENIG, Dr. P. H.  
STANDARDS MANAGER

Telephone (212) 248-0373  
Telefax (212) 248-0146

ATTACHMENT P-1  
S3/400

6 February 1995

TO: T. Frank, Chair S3

RE: Administrative Letter Ballot S3/392 sent to Accredited Standards Committee S3 on 11 November 1994 and closed on 23 December 1994

SUBJECT: Approval of the reaffirmation of S3.40-1989 - Guide for the Measurement and Evaluation of Gloves which are used to Reduce Exposure to Vibration Transmitted by the Hand

---

Enclosed please find tally of the above administrative letter ballot, showing results as follows:

## CLASSIFICATION OF MEMBERS

AFFIRMATIVE VOTES	10	P - PRODUCER	5
NEGATIVE VOTES	0	C - CONSUMER	6
ABSTENTIONS	4	G - GOVERNMENT	5
NOT RETURNED	<u>7</u>	GI - GENERAL INTEREST	<u>5</u>
TOTAL	21	TOTAL	21

AFFIRMATIVE VOTES:

Atack, R.M.  
Bennett, J.L.  
Burkard, R.F.  
Frank, T.  
Mayer, M.S.  
Naunton, R.F.  
Nixon, C.W.  
Page, J.  
Royster, L.H.  
Schonthal, E.

U.S. Army Medical Corps  
Power Tool Institute  
American Speech & Hearing Assoc.  
Acoustical Society of America  
A T & T (Alt. for Sachs)  
American Otological Society  
U S A F  
Navy Environmental Health Center  
American Industrial Hygiene Assoc.  
Bruel & Kjaer Instruments

NEGATIVE VOTES:

None

ABSTENTIONS:

Addington, J.H.  
Birkner, J.  
Campbell, R.H.  
Garinther, G.

Compressed Air & Gas Institute  
Industrial Safety Equipment Assoc.  
Audio Engineering Society  
USHEL

NOT RETURNED:

Brownson, P.J.  
Burnett, E.D.  
Conger, C.D.  
Mercola, P.  
Michael, L.A.  
Patterson, J.H.  
Zagzebski, J.

American College of Occupational/Environ. Medicine  
N I S T  
Hearing Industries Assoc.  
International Hearing Society  
American Assoc. of Otolaryngology  
U S A A R L  
American Institute of Ultrasound in Medicine

LATE RESPONSE:

None

Avril Brenig  
Standards Manager

cc: Vice Chair, Standards Committee  
Chair and Vice Chair, ASACOS

ATTACHEMNT A-  
LB/S3/392

**ASA S3 BIOACOUSTICS  
COMMITTEE CORRESPONDENCE**

**Tom Frank, Ph.D.  
5-A Moore Building  
Department of Communication Disorders  
Penn State University  
University Park, PA 16802  
(Phone: 814/863-2006 FAX: 814/865-3759)**

**Date:** October 19, 1994  
**From:** Tom Frank, Chair S3  
**To:** LAvril Brenig, ASA Standards Secretariat  
**Subject:** Reaffirmation of ANSI S3.40-1989 (ASA 79)

Attached you will find a letter from H. von Gierke, Chair of S3/WG39 indicating that ANSI S3.40-1989 (ASA 79) "Guide for the Measurement and Evaluation of Gloves Which are used to Reduce Exposure to Vibration Transmitted to the Hand" be reaffirmed without revision. I agree with his recommendation. As such, please start the procedure for reaffirmation of ANSI S3.40-1989 (ASA 79) as soon as possible.

If there are any questions please call me at 814-863-2006. Thanks for your support.

**cc:** Robert Burkard, S3 Vice-chair  
H. von Gierke, Chair S3/WG39

SENT BY:

10-19-94 : 12:09 : AL/CFB. W-PAFB. OH-

0:# 1

12 Oct 94

AL/CF  
2610 Seventh Street  
Wright-Patterson AFB OH 45433-7901

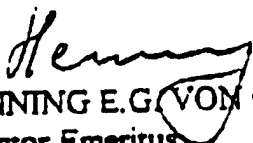
Dr. Thomas A. Frank  
Chair, Accredited Standards Committee 53  
Speech & Hearing Clinic  
Pennsylvania State University  
Fax: 814-863-3759

Dear Tom

This is in response to your request for review/reaffirmation of 53.40-1098 (ASA 79) "Guide for the measurement and evaluation of gloves....."

This standard was submitted as US proposal to ISO/TC108/SC4 for consideration as an ISO standard. ISO/TC108/SC4 decided at its recent 12-18 Sep 94 meeting at Prague, Czech Republic to circulate a committee document based on a proposal.

Our ANST standard should be reaffirmed. Once an ISO standard is accepted, the working group should consider the need/desirability of a revision.

  
HENNING E.G. VON GIERKE  
Director Emeritus  
Biodynamics & Biocommunications Division



# ACOUSTICAL SOCIETY OF AMERICA

OFFICE OF THE  
STANDARDS SECRETARIAT

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AVRIL BRENIG, Dr. P. H.  
STANDARDS MANAGER

Telephone (212) 248-0373  
Telefax (212) 248-0148

LB/S3/392  
11 November 1994

Return to: Letter Ballot Department  
Due date: 23 December 1994

## ADMINISTRATIVE LETTER BALLOT ACCREDITED STANDARDS COMMITTEE ON BIOACOUSTICS, S3

---

**Topic:** Approval of the reaffirmation of ANSI S3.40-1989 Guide for the Measurement and Evaluation of Gloves which are used to Reduce Exposure to Vibration Transmitted to the Hand

**Approved by:** T. Frank, Chair S3

**Distributed by:** A. Brenig, ASA Standards Manager

**Reference Document(s):**

ATTACHMENT A Correspondence relating to proposal to reaffirm  
ANSI S3.40-1989

### Background Information:

Further to ANSI Procedures, all standards are reviewed within five years of their publication to determine whether they should be reaffirmed, revised or withdrawn. Standards are subject to automatic withdrawal by ANSI if no action is taken within ten (10) years from their year of publication.

The Chair of S3, T. Frank, and H.E. von Gierke, chairman of S3/WG39 the working group which assisted S3 in the development of the subject standard, both recommend reaffirmation of ANSI S3.40-1989.



# ACOUSTICAL SOCIETY OF AMERICA

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AVRIL BRENIG, Dr. P. H.  
STANDARDS MANAGER

Telephone (212) 248-0373  
Telefax (212) 248-0146

ATTACHMENT Q-1  
S3/400

20 June 1995

**TO:** Tom Frank, Chair S3

**RE:** Administrative Letter Ballot LB/S3.32/398 sent to Accredited Standards Committee S3 on 2 May 1995 and closed on 20 June 1995

**SUBJECT:** APPROVAL OF THE PROPOSED REAFFIRMATION OF ANSI S3.32-1982 (R 1990) MECHANICAL VIBRATION AND SHOCK AFFECTING MAN - VOCABULARY

---

Enclosed please find tally of the above administrative letter ballot, showing results as follows:

<u>Classification of Members</u>			
AFFIRMATIVE VOTES	11	P - PRODUCER	5
NEGATIVE VOTES	0	C - CONSUMER	5
ABSTENTIONS	1	G - GOVERNMENT	5
NOT RETURNED	8	GI - GENERAL INTEREST	5
<b>TOTAL</b>	<b>20</b>	<b>TOTAL</b>	<b>20</b>

- 2 -

LB/S3.32/398

**AFFIRMATIVE VOTES:**

Bennett, J.L.	Power Tool Institute
Brownson, P.J.	American College Occupational/Environmental Med.
Chial, M.R. (Alt. for Campbell)	Audio Engineering Society
Frank, T.	Acoustical Society of America
Garinther, G.	USHEL
Mayer, M.S. (Alt. for Sachs)	AT&T
Naunton, R.F.	American Otological Society
Nixon, C.W.	USAF
Page, J.	Navy Environ. Health Center
Royster, J.D.	ASHA
Schonthal, E.	Bruel & Kjaer Instruments

**NEGATIVE VOTES:**

None

**ABSTENTIONS:**

Danielson, R.	U.S. Army Audiology & Speech Center
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**NOT RETURNED:**

Addington, J.H.	Compressed Air & Gas Inst.
Armstrong, S.	Hearing Industries Assoc.
Birkner, J.	Industrial Safety Equip. Association
Burnett, E.D.	NIST
Gates, G.	A.A.O.L.
Mercola, P.	International Hearing Society
Patterson, J.H.	USAARL
Royster, L.H.	American Industrial Hygiene Association

**LATE RESPONSES:**

None

Avril Brenig  
Standards Manager

cc: Vice Chair, Standards Committee  
Chair and Vice Chair, ASACOS



# ACOUSTICAL SOCIETY OF AMERICA

OFFICE OF THE  
STANDARDS SECRETARIAT

120 WALL STREET, 32nd FLOOR, NEW YORK, NEW YORK 10005-3993

AVRIL BRENIG, Dr. P. H.  
STANDARDS MANAGER

Telephone (212) 248-0373  
Telefax (212) 248-0146

LB/S3.32/398  
2 May 1995

Return to: Letter Ballot Department  
Due Date: 12 June 1995

## ADMINISTRATIVE LETTER BALLOT ACCREDITED STANDARDS COMMITTEE ON BIOACOUSTICS, S3

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**Topic:** APPROVAL OF THE PROPOSED REAFFIRMATION OF ANSI S3.32-1982  
(R 1990) MECHANICAL VIBRATION AND SHOCK AFFECTING MAN -  
VOCABULARY

**Authorized by:** T. Frank, Chair S3

**Circulated by:** A. Brenig, ASA Standards Manager

**Reference Document(s):**

**ATTACHMENT A:** Memorandum dated 4 April 1995 from T. Frank, Chair S3,  
to A. Brenig

**Background Information**

Recommendations for reaffirmation having been received, Mr. Frank, Chair S3, has requested that the proposed reaffirmation of ANSI S3.32-1982 (R 1990) be circulated to S3 for ballot.

The Chair of S3, T. Frank, with Messrs. W. J. Galloway and H. E. von Gierke, recommend that the above standard be reaffirmed.



**ASA S3 BIOACOUSTICS  
COMMITTEE CORRESPONDENCE**

**Tom Frank, Ph.D.  
5-A Moore Building  
Department of Communication Disorders  
Penn State University  
University Park, PA 16802  
(Phone: 814/863-2006 FAX: 814/865-3759 E-mail: taf1@psuvm.psu.edu)**

**Date:** April 4, 1995

**From:** Tom Frank, Chair S3.0

**To:** ✓ Avril Brenig, Standards Secretariat, ASA, 120 Wall Street, 32nd Floor, New York  
NY 10005-3993

**Re:** Reaffirmation of ANSI S3.32-1982 (R1990)

Enclosed you will find a letter from W.J. Galloway indicating that both he and Henning von Gierke have reviewed ANSI S3.32-1982 (R 1990) and agree that the document should be reaffirmed without revision. I agree with their decision. Thus, please start the procedure to have ANSI S3.32-1982 (R 1990) reaffirmed.

Please call me if there are any questions.

cc: W.J. Galloway, Henning von Gierke



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AVRIL BRENIG, Dr. P. H.  
STANDARDS MANAGER

Telephone (212) 248-0373  
Telefax (212) 248-0146

6 February 1995

TO: T. Frank, Chair S3

RE: Administrative Letter Ballot S3/394 sent to Accredited Standards Committee S3  
on 20 December 1994 and closed on 31 January 1995

SUBJECT: Approval of Officers, IEs and U.S. TAG Chairs for 1995/1996

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Enclosed please find tally of the above administrative letter ballot, showing results  
as follows:

## CLASSIFICATION OF MEMBERS

AFFIRMATIVE VOTES	15	P - PRODUCER	5
NEGATIVE VOTES	0	C - CONSUMER	6
ABSTENTIONS	1	G - GOVERNMENT	5
NOT RETURNED	<u>5</u>	GI - GENERAL INTEREST	<u>5</u>
TOTAL	21	TOTAL	21

AFFIRMATIVE VOTES:

Brown, M.	Power Tool Institute (Alt. for Bennett)
Brownson, P.J.	American College of Occu. & Environ. Medicine
Campbell, R.H.	Audio Engineering Society
Frank, T.	Acoustical Society of America
Mercola, P.	International Hearing Society
Naunton, R.F.	American Otological Society
Nedzelnitsky, V.	NIST
Nixon, C.W.	U S A F
Page, J.	Navy Environmental Center
Rogin, C.	Hearing Industries Assoc.
Royster, J.D.	American Speech & Hearing Assoc.
Royster, L.H.	American Industrial Hygiene Assoc.
Sachs, R.M.	A T & T
Schonthal, E.	Bruel & Kjaer Instruments
Zagzebski, J.	American Institute of Ultrasound in Medicine

NEGATIVE VOTES:

None

ABSTENTIONS:

Birkner, J.	Industrial Safety Equipment Assoc.
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NOT RETURNED:

Addington, J.H.	Compressed Air & Gas Institute
Atack, R.M.	U.S. Army Medical Corps
Garinther, G.	USHEL
Michael, L.A.	American Assoc. of Otolaryngology
Patterson, J.H.	USAARL

LATE RESPONSE:

None

Avril Brenig  
Standards Manager

cc: Vice Chair, Standards Committee  
Chair and Vice Chair, ASACOS

S3 ACCREDITED STANDARDS COMMITTEE ON BIOACOUSTICS  
S3 Appointments

<u>Position</u>	<u>Individual</u>	<u>Term</u>
Chairman	T. Frank	1994-1997
Vice Chairman	R.F. Burkard	1994-1997
ASA Member	T. Frank	1995-1996
Alt. ASA Member	R.F. Burkard	1995-1996
 <u>Individual Experts:</u>		
	J.R. Bareham	1995-1996
	S.J. Barry	1995-1996
	R.W. Benson	1995-1996
	A.J. Brammer	1995-1996
	D.D. Dirks	1995-1996
	K.M. Eldred	1995-1996
	J.L. Fletcher	1995-1996
	R.S. Gales	1995-1996
	W.J. Galloway	1995-1996
	R.M. Guernsey	1995-1996
	D.L. Johnson	1995-1996
	K.D. Kryter	1995-1996
	H. Levitt	1995-1996
	R.L. McKinley	1995-1996
	J.D. Royster	1995-1996
	H.E. von Gierke	1995-1996
	H.E. Wasserman	1995-1996
	L.A. Wilber	1995-1996
	W. Yost	1995-1996
	R.W. Young	1995-1996

US: TAG Chairs:

ISO/TC 43 Chair	P.D. Schomer	1995-1995
ISO/TC 43 Vice Chair	H.E. von Gierke	1995-1996
IEC/TC 29	V. Nedzelnitsky	1995-1996
ISO/TC 108/SC4	H.E. von Gierke	1995-1996



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ATTACHMENT R-5  
S3/400

LB/S3/394  
20 December 1993

Return to: Letter Ballot Department  
Due date: 31 January 1995

**ADMINISTRATIVE LETTER BALLOT**  
**ACCREDITED STANDARDS COMMITTEE**  
**ON BIOACOUSTICS, S3**  
**AND U.S. TECHNICAL ADVISORY GROUP (TAG) FOR**  
**IEC/TC 29 ELECTROACOUSTICS AND ISO/TC 43 ACOUSTICS**  
**AND ISO/TC 108/SC4 HUMAN EXPOSURE TO MECHANICAL**  
**VIBRATION AND SHOCK**

Topic: Approval of Officers and Individual Experts, and U.S. TAG Chairs, for  
1995/1996

Approved for circulation by: T. Frank, Chair S3

Distributed by: A. Brenig, ASA Standards Manager

Reference Document(s): ATTACHMENT A - Lists officers, Individual Experts for S3 and  
U.S. TAG Chairs for parallel international groups

Background Information:

According to ANSI's procedures, under which the Accredited Standards Committees operate, the Officers of the Standards Committees are to be confirmed (at the beginning of their terms), as well as Individual Experts (the latter to be confirmed annually) by the respective Standards Committees.

The officers and Individual Experts are proposed by the ASA Committees, on Standards (ASACOS) as the Secretariat for the Standards Committees, in concert with the Chairs of the respective Standards Committees.



# ACOUSTICAL · SOCIETY · OF · AMERICA

OFFICE OF THE  
STANDARDS SECRETARIAT

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ATTACHMENT S-1  
S3/400

6 February 1995

TO: T. Frank, Chair S3

RE: Administrative Letter Ballot S3/389 sent to Accredited Standards Committee S3  
on 10 October 1994 and closed on 21 November 1994

SUBJECT: Approval of New Work Item on Otoacoustical Emissions

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Enclosed please find tally of the above administrative letter ballot, showing results  
as follows:

## CLASSIFICATION OF MEMBERS

AFFIRMATIVE VOTES	13	P - PRODUCER	5
NEGATIVE VOTES	0	C - CONSUMER	6
ABSTENTIONS	1	G - GOVERNMENT	5
NOT RETURNED	<u>7</u>	GI - GENERAL INTEREST	<u>5</u>
TOTAL	21	TOTAL	21

AFFIRMATIVE VOTES:

Bennett, J.L.  
Burkard, R.F.  
Campbell, R.H.  
Frank, T.  
Garinther, G.  
Mercola, P.  
Naunton, R.F.  
Nixon, C.W.  
Page, J.  
Rogin, C.  
Royster, L.H.  
Sachs, R.M.  
Schonthal, E.

Power Tool Institute  
American Speech & Hearing Assoc.  
Audio Engineering Society  
Acoustical Society of America  
USHEL  
International Hearing Society  
American Otological Society  
U S A F  
Navy Environmental Health Center  
Hearing Insutries Assoc. (Alt. for Conger)  
American Industrial Hygiene Assoc.  
A T & T  
Bruel & Kjaer Instruments

NEGATIVE VOTES:

None

ABSTENTIONS:

Birkner, J.

Industrial Safety Equipment Assoc.

NOT RETURNED:

Addington, J.H.  
Atack, R.M.  
Brownson, P.J.  
Burnett, E.D.  
Michael, L.A.  
Patterson, J.H.  
Zagzebski, J.

Compressed Air & Gas Institute  
U.S. Army Medical Corps  
American College of Occu. & Environ. Medicine  
NIST  
American Assoc. of Otolaryngology  
USAARL  
American Institute of Ultrasound in Medicine

LATE RESPONSE:

None

Avril Brenig  
Standards Manager

cc: Vice Chair, Standards Committee  
Chair and Vice Chair, ASACOS





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ATTACHMENT S-3  
S3/400

LB/S3/389  
10 October 1994

Return to: Letter Ballot Department  
Due date: 21 November 1994

## ADMINISTRATIVE LETTER BALLOT ACCREDITED STANDARDS COMMITTEE ON BIOACOUSTICS, S3

**Topic:** Approval of proposal for new work item for Accredited Standards Committee S3, Bioacoustics, on OTOACOUSTIC EMISSIONS

**Approved by:** T. Frank, Chair S3, at the meeting of Accredited Standards Committee S3 held on 9 June 1994 (S3/385)

**Distributed by:** A. Brenig, ASA Standards Manager

**Reference Document(s):**

**ATTACHMENT A** Memorandum from T. Frank, Chair S3, to A. Brenig, dated 7 September 1994 containing the proposed scope of the new work item for S3, with its background and proposed chair

### **Background Information:**

The Chair of S3, T. Frank, and the chair of the newly proposed working group, G.R. Long, both recommend approval of this new work item for S3.

Please see Mr. Frank's memorandum dated 7 September 1994 (**ATTACHMENT A**) on the subject of the new work item for Accredited Standards Committee S3, and the establishment of a new working group, **S3/WG 84 Otoacoustic Emissions**, under chairmanship of **Glenis R. Long**

LB/S3/389  
ATTACHMENT A

ASA S3 BIOACOUSTICS  
COMMITTEE CORRESPONDENCE

Tom Frank, Ph.D.  
5-A Moore Building  
Department of Communication Disorders  
Penn State University  
University Park, PA 16802  
(Phone: 814/863-2006 FAX: 814/865-3759)

Date: September 7, 1994  
From: Tom Frank, Chair S3  
To: Avril Brenig, ASA Standards Secretariat  
Subject: Establishment of a new S3 Working Group

Please start the procedure for establishing a new S3 Working Group. The following provides the necessary information.

**NAME:** S3/WG 84 Otoacoustic Emissions

**BACKGROUND:** Otoacoustic emissions (OAEs) are acoustic signals recorded from the ear canal of humans, other mammals, and non-mammalian vertebrates and may be spontaneous or evoked by acoustic stimuli. Current evidence supports the view that, in humans, OAEs are generated by the outer hair cells within the inner ear. OAEs have been used as a noninvasive method to investigate cochlear processing and are currently used as a clinical method for hearing screening in newborn infants. In the case of acoustically evoked OAEs, the stimulus and response are both acoustic signals posing unique signal-processing problems.

**SCOPE:** The scope of this WG will be to develop a standard for: 1) the classification of instruments capable of recording different classes of OAEs, 2) the specification and classification of various measurement and recording parameters associated with OAEs, and 3) providing definitions relative to all aspects of OAEs.

**WG CHAIR:** Glenis R. Long, Purdue University, Department of Audiology and Speech Science, West Lafayette, IN 47907 (317/494-3815, FAX: 317/494-0771, E-mail: long@physics.purdue.edu) has agreed to chair the WG.

**NOTE:** Hopefully, establishing this WG will not be a problem. Once the WG is established please contact me immediately. In turn, I will contact Glenis Long and Robert Burkard. Then your office should send Glenis Long all of the ASA information concerning the development of a standard. If I do not receive a message from you, I will assume that you will have started the process of establishing this new S3 WG.

(File: S3gen\newwg.ab)

cc: Glenis R. Long  
Robert Burkard, S3 Vice-chair



**American National  
Standards Institute** 11 WEST 42ND STREET, NEW YORK, NEW YORK 10036

TEL. 212.642.4900

FAX. 212.398.0023

Cable: Standards, New York

International Telex: 42 42 96 ANSI L

D-U-N-S 07-329-483

April 3, 1995

Ms. Avril Brenig  
Standards Manager  
Acoustical Society of America  
120 Wall Street  
32nd Floor  
New York, NY 10005-3993

Dear Ms. Brenig:

Please be advised that the Executive Standards Council Subcommittee on Accreditation (ExSC SC-A) has reviewed the revisions to the *Operating Procedures for Accredited Standards Committees*, dated October 16, 1994, for the following:

- Accredited Standards Committee S1 - Acoustics
- Accredited Standards Committee S2 - Mechanical Vibration and Shock
- Accredited Standards Committee S3 - Bioacoustics
- Accredited Standards Committee S3 S12 - Noise

The ExSC SC-A has determined that changes to the Accredited Standards Committees operating procedures were not substantive. Therefore, I am pleased to inform you that the accreditation of ASCs S1, S2, S3 and S12 is maintained using the revised operating procedures.

If you have any questions regarding the maintenance of accreditation process, please feel free to contact me.

Sincerely,

Robert C. Armstrong  
Program Administrator  
Procedures and Standards  
Administration

cc: Accreditation file  
J. Lindsay, ANSI staff